SOUTHEASTERN **BIOLOGY**



ASB

Volume 59 January, 2012 Number 1

ASB 73RD ANNUAL MEETING ASB

ASB

ASB

ASB APRIL 4-7, 2012

The University of Georgia, Athens

The 75th Anniversary of ASB

ASB ASB See Page 1 and Consult Website

> http://www.sebiologists.org UNIVERSITY OF



Biological Sciences Building

ASB The Official Publication of The Association of Southeastern Biologists http://www.sebiologists.org

SOUTHEASTERN BIOLOGY

(ISSN 1533-8436)

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PURPOSE

The purpose of this association shall be to promote the advancement of biology as a science by encouraging research, the imparting of knowledge, the application of knowledge to the solution of biological problems, and the preservation of biological resources. The ASB has representation in Section G Committee of the AAAS. Varying types of membership are available to individuals and institutions. See inside back cover.

TIME AND PLACE OF FUTURE MEETINGS

- April 4-7: Hosted by the University of Georgia, Athens, Georgia. Meeting site is the Georgia Center on campus. April 10-13: Hosted by Marshall University, Huntington, WV. Meeting site is the Charleston Convention Center, 2012 2013 Charleston, WV.
- 2014 April: Spartanburg, SC (TBA); 2015 April: Alabama (TBA); 2016 April: TBA; 2017 April: Spartanburg, SC (TBA).



73rd Annual ASB Meeting & the 75th Anniversary Invitation To Exhibit And Present Workshops, Industry Partners & Advertising: Athens, GA

The Georgia Center April 4-7, 2012

This four-day event brings together approximately 1,000 biologists from across the southeastern United States. The meeting features a distinguished plenary speaker, special symposia, field trips, oral and poster presentations, workshops, networking and social events, and more.

The Annual Meeting provides you with the exclusive opportunity to showcase your products and/or services to this large and important audience of faculty, students, researchers, conservation workers, military and government personnel, and business professionals with a common interest in biological issues. Interests are diverse, but range from genetics and molecular biology, to physiology and population biology, to community and ecosystem ecology.

About ASB

The Association of Southeastern Biologists (ASB) was established in 1937 by biologists concerned with the quality of biological research in the southeastern United States. Today, ASB is the largest regional biology association in the country, and is committed to the advancement of biology as a science by the promotion of science education, research, and the application of scientific knowledge to human problems.

2012 Exhibitor Benefits

ASB is committed to maximizing your exposure and has scheduled a number of special events in the Exhibitor Showcase. The ASB Annual Conference allows for exposure to over 1000 attendees dedicated to the advancement of biology.

~Poster Sessions

Research posters will be displayed in the Exhibit Hall throughout the conference. ASB poster sessions are heavily attended. Exhibitors receive added exposure from this well attended event throughout the conference.

~Posters & Pastries

Attendees will view posters while enjoying AM & PM coffee breaks in the Exhibit Hall on Thurs & Fri. Refreshment area is located in the back of the Exhibit Hall for maximum traffic flow.

~Commercial Workshops

Exhibitors may target attendees who participate in a 50-minute commercial workshop presented by the exhibitor at no additional charge.

~Signage

Special Exhibit Hall signage recognizing exhibitor participation.

~Networking at Social Events

Wed Night Welcome Reception, Thurs Night Social, Fri Night Banquet. Take advantage of getting to know attendees during these informal marketing events.

~Year-Round Advertising & Marketing Opportunities

ASB provides a hot link to your company for each qualifying Exhibitor. The link will remain on the ASB web site throughout the year for your convenience.



Explanation of Exhibiting at the 75th Anniversary of the Annual Association of Southeastern Biologists

Athens, GA

Option 1: Regular Exhibitor

Exhibitor Package: Each \$975 booth consists of (1) 8' X 5'booth, (1) 6' X 24" white covered table with skirting, 2 chairs and 1 wastebasket, security services, hot link from ASB Web Site, 2 tickets to Thurs Night Social-"The Devil Went Down to Georgia", AM & PM breaks, Exhibitor Pizza Party during installation, exhibit hall signage, booth identification sign, recognition announcements and one 50-minute commercial workshop with **full** payment of booth, 2 complimentary badges for employees only (additional badges are \$175/person), 25 word description will appear in the final show program, Private Exhibitor-Only Lounge, 2 tickets to the Patrons & Exhibitors Breakfast.

Option 2: Publishers Book Exhibit (\$250 per title)

Attention Publishers & Authors!!! Can't make it to the meeting this year? No problem...... Each title is displayed in the Exhibit Hall in the ASB Publishers Book Exhibit Booth. Provide one copy of your publication and up to 500 copies of your accompanying literature. ASB will provide one 8" X 10" tabletop sign to announce your publication and display all 3 throughout the entire convention. (Your publication will not be returned.)



ASB Athens April 4-7, 2012

Exhibit Hall Hours

Wednesday, April 4, 2012

9am - 4pm Exhibitor Move-In

12noon-2pm Exhibitor Pizza Party

6pm –10 pm ASB Welcome Reception—University of Georgia Exhibit Hall is NOT Open

All exhibitors are invited and welcomed to attend the plenary session and welcome reception. Exhibitors who wish to sell items at this event will be provided a table in the reception area.

Thursday, April 5, 2012

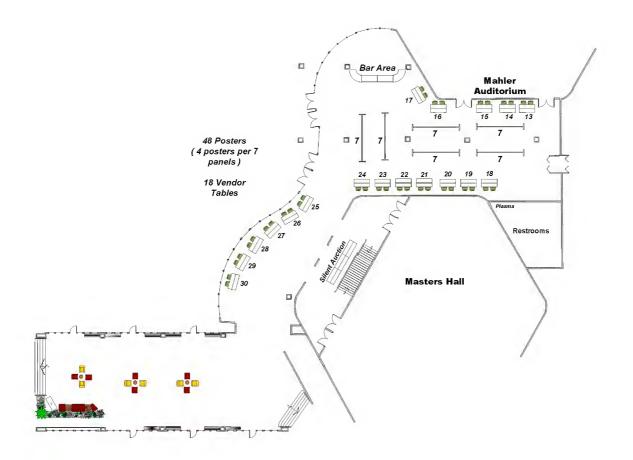
8am - 5:00pm Exhibits Open

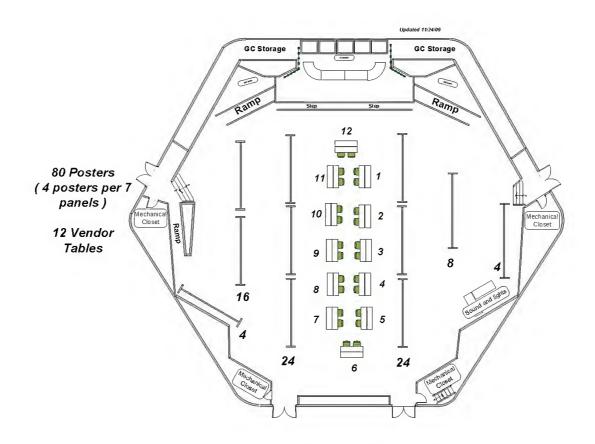
Friday, April 6, 2012

9am-2:00 pm Exhibits Open 2pm-4pm Exhibitor Move-Out

In recognition of your support of ASB, all Exhibitors are welcomed to attend the Free Exhibitors and Patrons Breakfast. A separate letter of invitation will be mailed to you in March 2012.

2012 Meeting Information 5







Exhibitor Booth Registration Form

2012 Association of Southeastern Biologists April 4-7, 2012 Athens, GA The Georgia Center

Exhibitor Package: Each \$975 booth consists of (1) 8' X 5' booth, (1) 6' X 24" white covered table with skirting, 2 folding chairs and 1 wastebasket, security services, hot link from ASB Web Site, 2 Tickets to Thurs. Night Social-"The Devil Went Down to Georgia", AM & PM breaks, Exhibitor Pizza Party during installation, exhibit hall signage, booth identification sign, recognition announcements and one 50-minute commercial workshop with full payment of booth only (workshop form must be submitted by Jan. 31, 2012), 2 complimentary badges for employees only (additional badges are \$175/person), 25 word description will appear in the final show program. (The exhibit hall is carpeted.)

Company/Org (Plea	ganization ise list company name as you wish it to appear on printed r	 naterials)
Representativ	ve (The person who will receive the Exhibitor Service	· Kit):
If you need a	dditional Service Kits, please e-mail A2ZConvention	@yahoo.com
Email Addres	s:	
	ess:	
Telephone: _	Fax:	
25 Word Wor Please submi	ot Link from ASB Web Site) kshop Description: It description via e-mail to <u>A2ZConvention@yahoo.co</u>	<u>om</u>
	will appear in Final Show Program of Southeastern b	
Qty	Item	Amount
	Patron Member Booth 1st Booth Each Additional Booth Publishers Book Exhibit Yes I would like an AD in Southeastern Biology, Final On Site Program (circle choice) 1/4 page=\$250, 1/2 page=\$375, full page=\$500 (The On Site Program AD is included at no charge for	included \$975 \$500 \$250/title r Patron Members)
	Total Amount Enclosed	\$

1st choice 2nd choice	,
Hold Harmless Clause: The Exhibitor assundamages and claims arising out of injury to the exhibrought upon the premises of the convention facilitie association agents, servants and employees as well damages and claims.	ibitor's display, equipment and other property as and shall indemnify and hold harmless the
Upon acceptance by ASB, this signed application and for booth rental for the 2012 ASB Annual Convention. no later than 1 March 2012. Refund Policy: 50% on or but the convention of the conventi	Exhibitor's will be notified of their acceptance
Signature	Date
Title	e-mail
Return Exhibitor Registration Form with Check or Cred	dit Card info by March 1. 2012 to: Scott Jewell.

Return Exhibitor Registration Form with Check or Credit Card into by **March 1, 2012** to: Scott Jewell, ASB Meeting Planner, PO Box 1088, Mebane, NC 27302; <u>A2ZConvention@gmail.com</u>, 336/213-7373 cell, 336/421-0034 office, 336/421-3425 fax.

*Exhibitor Service Kits to be e-mailed by 15 March 2012



Exhibit Hall Badge Form

2012 Association of Southeastern Biologists April 4-7, 2012 Athens, GA The Georgia Center

FAX This Completed Form Before 3/15/12 To Scott Jewell, ASB Meeting Planner

FAX # 336/421-3425

Company/Organization		
Name	City	State
1.		
2.		
Additional Badges \$175/ea		
Name	City	State
1.		
2.		
3.		
4.		

Note: Each Company receives two complimentary exhibit hall passes per booth payment. Badges are to be used for company employees only. Partnering companies must pay to register for the ASB Conference. BADGES MUST BE WORN TO BE ADMITTED INTO ALL FUNCTIONS!!!



Advertising with the

Association of Southeastern Biologists

Reach Your Target Audience and Promote your Products and Services Throughout the Year!! Advertise in *Southeastern Biology*.

Advertise in Southeastern Biology and reach over 1,500 members from 42 states

an On-Site Program for	oublishes 4 issues of <i>Southeastern Biology</i> per year and the Annual Meeting. Choose one or both opportunities to ng exposure. Promote your products and services
¼ Page 1½" X 1"	
	½ Page 3" X 2"

Full Page 7½" X 4 ¾"

Advertising with the Association of Southeastern Biologists (cont.)

 Yes I would like an AD in all 4 (Full Color) issues of $Southeastern\ Biology$, (circle choice)
1 page=\$200, 1 page=\$325, full page=\$425
 AD in Final On Site Program (circle choice) (Black & White Only)
1/4 page=\$175, 1/2 page=\$225, full page=\$275
*All must be submitted in jpg.

Return Form with Check or Credit Card Information to: Scott Jewell, ASB Meeting Planner, PO Box 1088, Mebane, NC 27302; AZZconvention@gmail.com, 336/213-7373 cell, 336/421-0034 office, 336/421-3425 fax.



<u>Industry Partners Form</u> 2012 Association of Southeastern Biologists April 4-7, 2012 Athens, GA The Georgia Center

Yes I Would Like to Partner with ASB and Participate in the Industry Partners
Program!!

Repres	nny/Organization(Please list company name as you wish it to sentative:Address:	appear on printed materials)
Teleph	one: Fax:	
	al Recognition at Thurs Night Social, Friday N ntion Center and a listing in Final Show Program of	
Qty	Item	Amount
	New-75 th Anniversary Xbox Challenge-New	\$400/opportunity
	Coffee Breaks (8 Opportunities)	\$500/opportunity
	Thurs Night Social (4 Opportunities)	\$900/opportunity
	Fri Night Banquet Cash Bar	\$850
	Yes I wish to present a workshop	See Workshop Form (Due by Jan 31, 2012)
	24 Hour Exhibit Hall Security	\$1,000
	ASB Executive Committee Breakfast	\$350
	Yes I would like to Donate an Item to the Silent Auction to help with Student Travel	
	ASB Web Site Hot Link to Your Company (12 mo	nths)\$375
	Yes I would like an AD in all 4, 2012 issues of <i>Southeastern Biology</i> (circle choice) ¼ page=\$200, ½ page=\$325, full page=\$425	
	AD in Final On Site Program (circle choice) ¼ page=\$175, ½ page=\$225, full	page=\$275
	Industry Partners Total	\$

Signature	Date
Title	e-mail

Return Industry Partners Form with Check by **15 March, 2012** to: Scott Jewell, ASB Meeting Planner, PO Box 1088, Mebane, NC 27302; <u>A2Zconvention@gmail.com</u>, 336/213-7373 cell, 336/421-0034 office, 336/421-3425 fax.



Re-Cap & Payment Information

<u>Description</u>	<u>Amount</u>
Exhibiting Full Booth	\$
Publishers Book Exhibit	\$
Advertising	\$
Industry Partners	\$
Total	\$
Mail or Fax Your Forms Fax or mail your completed registration form along Jewell, ASB Meeting Planner, PO Box 1088, Meb. 336/213-7373 cell, 336/421-0034 office, 336/421-	
VisaMasterCard	Discover AMEX
cc#	
Exp. Date/	
3 digit security code on back of card	
Name As It Appears On Card	
*Institution/Organization *Address	
*Line 2	State*Postal Code
City *8	state *Postal Code

PLENARY SPEAKER

DR. DAVID S. SCHIMEL

Address Title: The Strategy of Ecosystem Development revisited through modern observing systems

Dave Schimel is the Chief Science Officer and Principal Investigator for the

National Ecological Observatory Network (NEON). NEON is a project of the U.S. National Science Foundation. with many other U.S. agencies and NGOs cooperating. The National Ecological Observatory Network (NEON) will collect data across the United States on the impacts of climate change, land use change and invasive species on natural resources and biodiversity. NEON will be the first observatory network of its kind designed to detect and enable forecasting of ecological change at continental scales over multiple decades. Dave Schimel brings a wealth of relevant experience to his work at NEON; he served as a Senior Terrestrial Scientist in NCAR's Climate and Global Dynamics Division for 16 years, and was Founding Co-Director of the Max-Planck Institute for Biogeochemistry. Dave is one of the recipients of the Nobel Peace Prize for his work in 2007 on the



Intergovernmental Panel on Climate Change Report, and has authored more than 150 papers on biogeochemistry climate impacts on ecosystems and the global carbon cycle. Dave also serves as the Editor in Chief of Ecological Applications for the Ecological Society of America. His career has focused on the large-scale relationships of land management and climate change on ecosystem processes and includes expertise in managing large, complex research projects, remote sensing, data management, modeling, and the application of ecological research to science policy development. Dave served as CEO of NEON from 2006 to 2011, overseeing NEON's design and development phase to successful completion.



Attendee Registration Form

for

The 73rd Annual Meeting

of

The 75th Anniversary

of

The Association of Southeastern Biologists

April 4-7, 2012

The Georgia Center for Continuing Education

The Georgia Conference & Hotel Center On the Campus of the University of Georgia Athens, GA

Attendee Pre-Registration Forms (Mail or Fax Forms)

For Assistance with Registration please contact A2Z Convention Services, LLC Phone: 336-770-6521 or 336-421-0034 Fax: 336-421-3425 A2ZConvention@gmail.com

Attendee PRE-Registration Form Deadline & Instructions

(Pre-Registration Deadline is Feb 28, 2012) (Standard/Regular Registration Deadline is March, 25, 2012)

This form is no longer valid after March 25, 2012
E-Mailed, Faxed & Online Registration Closes March 25, 2012
Mailed Registrations must be postmarked by Sat., March 24, 2012
After March 25, 2012 you must register On Site.
Please contact A2Z Convention Services for questions regarding
Registration A2ZConvention@gmail.com 336-421-0034 or 336-770-6521

PLEASE CHECK (DOWNLOAD AND PRINT FORM) FROM THE ASB WEB SITE,

www.sebiologists.org

FOR THE MOST CURRENT ATTENDEE REGISTRATION
FORM THAT INCLUDES WORKSHOPS, FIELD TRIPS, PAST PRESIDENTS'
BREAKFAST,
SPECIAL LUNCHEONS & SPECIAL SESSIONS

Note: To register for the meeting as an ASB Member and receive the discounted registration rate, your membership dues must be up-to-date. If you need to join or renew, you must either e-mail, fax, or mail your payment with a credit card or pay your dues online www.sebiologists.org (instantly updated) or mail your check to the ASB treasurer at least three weeks before you register online. For membership questions, contact the ASB treasurer, Tim Atkinson, (Tim.Atkinson@carolina.com; phone 336/538-6224.)

One Form Per Attendee Please PRINT CLEARLY PLEASE

*First Name:	*Middle Name:
*Last Name:	
*Institution/Organization:	
*Address 1:	
Address 2:	
*City: *Postal Code:	*State:
*Work Phone: Country:	Fax:
Home Phone:	Cell Phone:
**Attendee's E-Mail Address	
immediate confirmation of your re e-mail address! Please do not use	must provide an e-mail address to receive an egistration. Each registrant must have his/her own the same e-mail address for multiple registrants. I will need to present student ID at check-in.
Faculty Graduate Undergraduate Other	
Affiliations:ASB_ (Check all that apply) SHC	_ESABBBSABSSWSBSA _SSP_SEMSSE ASIHNABT

Circle Correct Amount Below You Will Need to Present Student ID at Check-In

Registration Type	Early Rate	Standard Rate	On-Site Rate
General Registration			
Regular	\$290.00	\$325.00	\$360.00
Student	\$165.00	\$190.00	\$205.00
ASB Member Discounts			
ASB Regular Member	\$215.00	\$250.00	\$285.00
ASB Student Member	\$120.00	\$145.00	\$160.00
ASB Patron Member	\$00.00	\$00.00	\$00.00
ASB Emeritus Member	\$00.00	\$00.00	\$00.00

Guest????- If you are a friend/spouse of a professional or student biologist, and you yourself are not involved in the biological sciences professionally or academically, you qualify as a guest.

(Pre-Registration Deadline is 2/28/12)

(Standard/Regular Registration Deadline is 3/25/12)

Enrichment Fund Please Select and Circle One or More! Each Donor Will Receive A Special Ribbon to Wear During the Annual Meeting and Be Registered for \$100 Cash Drawing—To Be Given Away at the Friday Awards Banquet—You Do Not Have to Be Present to Win! Good Luck!	# of Ribbons	<u>Donation</u> <u>Offer</u>	Total
Bronze Donation		\$10	
Silver Donation		\$25	
Gold Donation		\$50	
Platinum Donation		\$100	
Pearl Donation		\$500	
Diamond Donation		\$1000	



Social Events (Please check $\underline{\textit{all}}$ events you plan to attend; see Program for details)

Session Description	# of Tickets	Pre- Registration	On Site	<u>Total</u>
WEDNESDAY NIGHT PLENARY & SOCIAL				
Wednesday Evening Wine and Cheese, Post-Plenary Session w/Cash Bar You Must have a Ticket to Attend.		\$0	\$0	
THURSDAY NIGHT SOCIAL "The Devil Went Down to Georgia"				
Thursday Night Social- Regular Tickets		\$48	\$55	
Thursday Night SocialStudent Tickets (Must Present Student ID at Check-In)		\$48	\$55	
Thursday Night Social- Guest Ticket (Must be Registered as a Guest)		\$48	\$55	
Name of Guest:				

FRIDAY NIGHT AWARDS BANQUET	# of Tickets	Pre- Registration	On Site	<u>Total</u>
Friday Night Awards Pre-Banquet Social		\$0	\$0	
Regular Friday Evening ASB Awards Banquet* Each entrée includes a Garden Salad, Bread, Chef's Selection of Vegetables, Beverage, and dessert Please indicate:BeefChickenVegetarian		\$40	\$45	
Regular Guest Friday Evening ASB Awards Banquet* Each entrée includes a Garden Salad, Bread, Chef's Selection of Vegetables, Beverage, and dessert Please indicate:BeefChickenVegetarian (Must be registered as a guest) NAME OF GUEST:		\$40	\$45	
Student Friday Evening ASB Awards Banquet* Each entrée includes a Garden Salad, Bread, Chef's Selection of Vegetables, Beverage, and dessert Please indicate:BeefChickenVegetarian		\$25	\$30	

^{*}Reminder: You must purchase a ticket and attend the banquet to be eligible for an ASB Award.

SPECIAL BREAKFAST & LUNCHEON	# of	Pre-		
DESCRIPTIONS	<u>Tickets</u>	Registration	On Site	Total
Thursday Morning Past Presidents' Breakfast		\$25	\$30	
Harrison Birramaite Committee at Thomas		0.0	Ф О	
Human Diversity Committee: Thursday Luncheon & Roundtable Discussion-Human Diversity & the Future of ASB -A candid discussion about the committee, its future and the relationship with ASB -Limited to 50 Participants, Lunch Included for All Participants		\$0	\$ 0	
SHC-Society of Herbarium Curators: Southeast Chapter Thursday Luncheon—You Must Have a Ticket to Attend		\$0	\$0	
SWS Thursday Luncheon-Select One Portobello Ravioli -or-Southern Style Pot Roast -or-Classic Chef Salad		\$20	\$25	
ESA/SE Friday Chapter Luncheon- Select One Portobello Ravioli -or-Southern Style Pot Roast -or-Classic Chef Salad		\$20	\$25	
SABS/SEBSA Friday Chapter Breakfast		\$25	\$30	
Education Committee: Friday Luncheon & Roundtable Discussion- How May We Serve You? -Attendees Will Provide Feedback About Future Topics/Concerns for the Committee and ASB -Limited to 50 Participants, Lunch Included for All Participants		\$0	\$0	

Additional Events (Please check $\underline{\textit{all}}$ events you plan to attend; see Program for details)

# of Tickets	Pre- Registration	On Site	Total
	\$0	\$0	
	\$15	\$20	
		Tickets Registration \$0	Tickets Registration Site \$0 \$0

Special Session Descriptions	# of Tickets	Pre- Registration	On Site	<u>Total</u>
Special Sessions will also be available for all registered attendees! These sessions presented by exhibitors will allow you to learn about the latest tips from the experts. The fee for each session will be \$10 each, and you may register to attend one or more session during the Annual ASB Meeting. Space is limited and you must register for the special sessions, so don't delay! All sessions will be held at the Georgia Center.				
WORKSHOPS				
Biopac - Thursday April 5 th 10:30am				
Title: Biopac Student Lab – Human, animal and in vitro life science data acquisition & analysis. NEW! Rich multi-media lessons include videos, images, and example data to guide students, demonstrate difficult procedures, display curriculum materials, and more! Intuitive, flexible, and robust data acquisition increases student comprehension and makes labs run smoothly.www.biopac.com		\$10	\$12	

Associated MicroscopeThursday			
April 5 th 1:30pm			
Celebrating Its 35th Year!			
Title: Network Digital Microscope	\$10	\$12	
Solution			
MoticNet			
MoticNet is designed to be used in a			
teaching environment where			
microscopes are used for laboratory or			
experiment use. The software includes			
Student Version and Teacher Version.			
Teachers are enabled to observe and			
manipulate images from their students'			
microscopes, or to surveil and operate			
the students' computers in a real-time			
format. Being a completely interactive			
tool, this software package allows for			
Swift's high performance microscopes			
to be used in an efficient, educational			
and highly productive manner.			
Image Processing and Analysis-			
Multiple functions of image processing			
and analysis are available in this			
software.			
www.associatedmicroscope.com/			
Bio-Rad LaboratoriesThursday			
April 5th 3:30pm	\$10	\$12	
Title: Integrated Molecular Biology			
Labs for College Level!			
Looking for authentic lab experiences			
that carry a gene or protein from			
isolation to analysis? Bio-Rad's lab			
series can be used as capstone			
projects or a complete course.			
		1	



Lunch Offerings

The Georgia Conference Center and Hotel is situated 9/10 of a mile from downtown Athens. There are only a couple of fast food offerings that are about a 10-minute walk from the meeting location.

It is strongly encouraged to pre-order either a Box Lunch or the Lunch Bar.

Thursday Box Lunches (Served in the Exhibit Hall on Thursday and Friday Only. Must be ordered during pre-registration and present lunch ticket. No cash sales on site)	# of Tickets	Pre- Registration	On Site	<u>Total</u>
Ham and Swiss Cheese Sub- (Thursday) Includes Apple, Chips, Chocolate Chip Cookie, and Soft Drink		\$14	n/a	
Roast Beef Sub-(Thursday) Includes Apple, Chips, Chocolate Chip Cookie, and Soft Drink		\$14	n/a	
Turkey Sub -(Thursday) Includes Apple, Chips, Chocolate Chip Cookie, and Soft Drink		\$14	n/a	
Vegetarian Sub-(Thursday) Guacamole, Vegetables, and Cheese ,Apple, Chips, Chocolate Chip Cookie, and Soft Drink		\$14	n/a	



Friday Box Lunches (Served in the Exhibit Hall on Thursday and Friday Only. Must be ordered during pre-registration and present lunch ticket. No cash sales on site for box lunches)	# of Tickets	Pre- Registration	On Site	Total
Ham and Swiss Cheese Sub-(Friday) Includes Apple, Chips, Chocolate Chip Cookie, and Soft Drink		\$14	n/a	
Roast Beef Sub-(Friday) Includes Apple, Chips, Chocolate Chip Cookie, and Soft Drink		\$14	n/a	
Turkey Sub-(Friday) Includes Apple, Chips, Chocolate Chip Cookie, and Soft Drink		\$14	n/a	
Vegetarian Sub-(Friday) Guacamole, Vegetables, and Cheese ,Apple, Chips, Chocolate Chip Cookie, and Soft Drink		\$14	n/a	

Lunch Bar (Served in the Magnolia Ballroom on Thursday and Friday Only & Strongly Encouraged to Pre-order This Lunch Option or a Box Lunch)	# of Tickets	Pre- Registration	On Site	Total
Deli BuffetThursday Only Freshly sliced deli meat: Roast Beef, Turkey, and Ham with assorted breads Assorted sliced cheese tray Homestyle potato salad Assorted cookies and brownies		\$16	\$20	
Pasta BuffetFriday Only Penne pasta Choice of: Alfredo sauce or Marinara sauce Grilled chicken Steamed seasonal vegetable medley, Garlic Bread Garden fresh salad with choice of: Ranch and Basil Vinaigrette		\$16	\$20	

Saturday Field Trips For Information on Field Trips, Please contact Dr. Joey Shaw: e-mail: joey-shaw@utc.edu Work phone:(423) 425-4265	# of Tickets	Pre- Registration	On Site	Total
Field Trips				
1. Birding at the State Botanical Garden of Georgia in Athens, GA. Trip Leaders: Caralyn Zehnder (caralyn.zehnder@gcsu.edu) (478-445-2372) from Georgia College & State University and Will Duncan (will_duncan@fws.gov) from the US Fish & Wildlife Service. The State Botanical Garden of Georgia (http://botgarden.uga.edu/) is located along the Oconee River and contains approximately 5 miles of easy hiking trails (not that we'll necessarily hike them all) through wooded and open habitats. We should be able to see spring migrants as well as some of our favorite resident species. Wear comfortable walking shoes, clothes that can get a little dirty, and bring binoculars if you have them. We will also have several binoculars available if anyone needs a pair. Email us if you need a pair. Please meet at the fountain outside the Botanical Gardens Visitors Center at 8AM. There is no entrance fee. The Garden is located at 2450 S. Milledge Ave in Athens, Georgia. From the UGA Hotel & Convention Center, head southwest on Lumpkin St. Turn left onto Milledge Avenue (heading south). Travel 2.4 miles down Milledge Ave. The Botanical Gardens will be on your right.		See Description for Price of Field Trip		

2. The Martha H. and Eugene P. Odum Watershed, Spring Hollow, Madison County, GA. Trip leaders: Terry L. Barrett (tbarret@uga.edu), and Gary W. Barrett (gbarrett@uga.edu).

Meeting place: Please park your vehicle in Parking Lot S07, which is adjacent to the Eugene P. Odum School of Ecology Building. Please meet promptly in Parking Lot S07 at 9:00 a.m., as we will leave from this parking lot

Cost: Please have twenty-five dollars (\$25) in cash to pay for lunch and wine tasting.

Spring Hollow is located in proximity to Ila. Georgia. This one hundred, fifty-two-acre (62ha) property encompasses a log house for gathering, reference watershed, pond, and old-growth forest. Martha H. and Eugene P. Odum provided an endowment of three hundred thousand dollars (\$300,000) through the University of Georgia Foundation for the maintenance and support of this facility. Restoration of the log house circa 1821 has begun, including completion of a cedar-plank shingle roof. An interpretive nature trail recently has been traced through the property; this trail focuses on careful observation of indigenous flora and fauna, and unique topography regarding ecological and anthropogenic management. A map from Athens to Spring Hollow will be provided for road trip participants at the meeting place. Experience barbeque as southern culture. Bill's Bar-B-Que offers among traditional plates, pulled pork, slaw, Brunswick stew served with slices of white bread, and accompaniments of vinegar-based sauces. Bill's Bar-B-Que http://www.yelp.com/biz/billsbar-b-que-hull. Afternoon tasting of regional wines:. With a careful emphasis on viniculture, Boutier vineyards are situated in the temperate Piedmont Region of Georgia. The long growing season and constant breezes help keep fruit and foliage dry and encourage rich, ripe fruit, and healthy vines.

See Description for price of Field Trip

Incorporating these fruits, Owners Mary Jakupi Boutier and Victor Boutier, WineMaker, synthesize their wines earning national and international awards. <i>Boutier Winery & Vineyard</i> http://www.boutierwinery.com.		
3. Visit the Georgia Aquarium.		
This is an unguided tour (i.e., there is no official leader) and a chance for like-minded people to visit the Georgia Aquarium together. Meet in the lobby of the Georgia Convention Center at 9 AM on Saturday morning and potentially carpool to the aquarium. General admission is ~\$25/person, but possible to get group rates (we will negotiate these after we know how many people have signed up for this field trip).	See Description for price of Field Trip	
Additional Activities & Fun Things to Do!		
The State Botanical Garden of Georgia really nice indoor and outdoor gardens, plus lots of trails located ~10 minutes from UGA [free] http://botgarden.uga.edu/ UGA Botany Greenhouses Our greenhouses are really nice and have an impressive teaching collection, complete with a fern room, desert room, and a two-story tropical room [free] http://www.plantbio.uga.edu/ Atlanta Botanical Gardens ~1.5 hours west of Athens. [admission, not sure how much] http://www.atlantabotanicalgarden.org/ Tallulah Gorge 2 hours north of Athens [\$5]		
parking] http://www.gastateparks.org/TallulahGorge		
<u>Unicoi State Park</u> – 1.5 hours north of Athens [~ \$2/person to visit Anna Ruby Falls] http://www.gastateparks.org/Unicoi		

North Georgia Winery Tour There are several wineries in North Georgia, all about 1.5 hours north of Athens [some tastings are free, others request a small fee] http://www.georgiawinetours.com/ Zoo Atlanta~1.5 hours west of Athens		
[general admission is ~\$21/person] http://www.zooatlanta.org/		
World of Coca-Cola ~1.5 hours west of Athens [general admission is \$16/person] http://www.worldofcoca-cola.com/		
CNN Headquarters ~1.5 hours west of Athens [studio tours are \$15/person] http://www.cnn.com/tour/		

Grand Total		
Please Enter Amount Here for Grand Total		

Method of Payment Page--Please See Below.



Registration & Payment Information: (5 Options)

For Assistance with Registration:
Please contact A2Z Convention Services 336-421-0034

Option A: Register Online with Credit Card

Register on-line at www.sebiologists.org for secure online credit card payment. You must provide an e-mail address to receive an immediate confirmation of your registration.

Option B: Fax Your Form with Credit Card

Fax your completed registration form along with your credit card information to the ASB Conference Registration Manager at A2Z Convention Services: Fax # 336/421-3425. (secure fax machine) You must provide an e-mail address to receive an immediate confirmation of your registration.

Option C: E-mail Your Form with Credit Card

Fax your completed registration form along with your credit card information to the ASB Conference Registration Manager at A2Z Convention Services: Fax # 336/421-3425.

Option D: Mail Your Form with Credit Card

Fax your completed registration form along with your credit card information to the ASB Conference Registration Manager at A2Z Convention Services: Fax # 336/421-3425. You must provide an e-mail address to receive an immediate confirmation of your registration.

Option E: Mail Your Form with a Check (Must be post marked by Friday, March 23, 2012)

Mail your completed registration form and your check to ASB, c/o A2Z Convention Services, PO Box 1088, Mebane, NC 27302. Please make your check payable to: The Association of Southeastern Biologists. You must provide an e-mail address to receive an immediate confirmation of your registration.

Visa	MasterCard	Discover	AMEX	
CC#				
Exp Date				
3 digit securi	ty code on back of ca	ard 🔲 📗		
Credit Card B	ppears On Card Billing Address			
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Cancellation ASB is notified After March	policy: A full refund ed in writing at the al	will be issued (less bove address on o d will be granted	s a \$25 handling fee) if r before March 1, 2012. d. Requests must be	
Cancellation ASB is notified After March	policy: A full refund ed in writing at the al 1, 2012, no refun by March 1, 2012 to re	will be issued (less bove address on o d will be granted	s a \$25 handling fee) if r before March 1, 2012.	
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ASB 2012 Athens. GA—Hotel Information

- Please use the ASB approved and sponsoring hotel for attendees and exhibitors.
- ASB will receive exclusive benefits for using the ASB sponsored hotel.
 - The Georgia Center is our Headquarters Hotel and is conveniently located on the University's South Campus and only minutes away from Downtown Athens. The address is 1197 South Lumpkin Street, Athens, Georgia 30602-3603. When you call to make reservations and if the Georgia Center, if you find there are no available rooms, they will reserve a room for you at our designated overflow hotel (Holiday Inn). ASB will provide free daily shuttle service to/from the overflow hotel. The Holiday Inn is 9/10 of a mile from the Georgia Center.
 - Do not call the overflow hotel to make a reservation.
 - You must call the Georgia Center (THE RESERVATIONS TOLL FREE NUMBER IS AVAILABLE 8AM-5PM EST M-F ONLY) or use the ONLINE RESERVATIONS LINK to make any reservation:

http://www.georgiacenter.uga.edu/cch/register/association-southeastern-biologists-2012-conference.

- Park your car at the hotel and leave it until the end of the convention. You can
 pay your daily parking fee at check-in and have unlimited in/out privileges. If
 staying at the overflow hotel, use the free daily shuttle for your convenience. A
 shuttle schedule will be printed in the On-Site Program.
- · All conference events will be held at The Georgia Center.
- Please remember to ask for the special ASB Group Rate (code: 69436) when
 making reservations. The following hotels are providing additional services to
 accommodate ASB. Please make your reservations as soon as possible. The
 Georgia Center is our Headquarters Hotel and has been secured for Exhibitors
 and ASB attendees. There is a daily parking fee at the Georgia Center for
 personal vehicles and vans. Please make your reservations as soon as
 possible. Please visit their web sites for directions to their property or use your
 (GPS). THE LAST DAY TO RESERVE A ROOM AT THE DISCOUNTED RATE IS
 5pm 3/1/2012.

Headquarters Hotel: The Georgia Center Contact Info & Rates Note: You will not have the ability to make online reservations—you must call the Georgia Center toll free to make any reservation or use the online reservation link below.

Group Name:	ASSOCIATION OF SOUTHEASTERN BIOLOGISTS
Group Code:	69436
Hotel Name:	The Georgia Center
Hotel Address:	1197 South Lumpkin Street, Athens, Georgia 30602
On Line Reservations	http://www.georgiacenter.uga.edu/cch/register/association- southeastern-biologists-2012-conference
Web Site	http://www.georgiacenter.uga.edu/cch
Phone Number:	800-884-1381;Available Only M-F 8am-5pm EST

Please visit the web site and view room types, hotel services and all 3 campus walking maps.

Occupancy	Classic	Select	Overflow Hotel			
Single	\$119	\$139	\$139			
Double	\$139	\$159	\$159			
Triple	n/a	\$179	\$179			
Quad	n/a	\$199	\$199			

Room Types:

Classic Queen (1 Queen bed)
Classic King (1 King bed)
Select Double/Queen (2 double beds or 2 queen beds)

We Need Your Help With the Silent Auction!!

The silent auction was established in 2006 to raise money to help defer travel cost for Graduate Student members presenting papers or posters during the ASB Annual Meeting. Since 2006, ASB has granted more than \$32,000 to qualifying students. Of that, the silent auction has added a little over \$11,000.00 (36%) to the graduate student travel fund. However, in order to actually make money, we need to have items to auction off in Athens, GA during the 73rd Annual ASB Meeting, April 4th-7th, 2012. The donated items can be books, to handcrafts, to memorabilia, to nature photography, to t-shirts or anything else you think appropriate. Some examples of the recent best-selling items are gift baskets, gift cards, nature books, jewelry, wine or any adult beverage and unique gifts.

 If you have an item you would like to donate to the Silent Auction, please contact

Patricia Cox - pbcox@tva.gov so we can add your item to our list.

 If you are unable to attend, please mail your item to Scott Jewell, the ASB Meeting Manager before March 30th at

> A2Z Convention Services, LLC PO Box 1088 Mebane, NC 27302

 If you are attending the meeting, please bring your item to the Silent Auction Area in the Exhibit Hall before 10:00 AM on Thursday, April 5th and one of the committee members will be available to receive it.

We want to thank you in advance for participating in this worthwhile event. If you have any questions, please feel free to contact one of the Committee Members below:

Patricia Cox-- pbcox@tva.gov
Kim Marie Tolson-- tolson@ulm.edu
Pat Parr-- parrpd@ornl.gov
Eloise Carter -- ecarter@learnlink.emory.edu
Bonnie Kelley-- bonnie.kelley@uncp.edu
Diane Nelson-- janddnelson@yahoo.com



Silent Auction

Yes I would like to contribute to the Silent Auction to help with student travel to the Annual Meeting. (100% of all proceeds to benefit student travel).									
Examples of Previous Submitted Items									
Dissection Set Corporate Gift Certificates Frog Model Dinner for Two Two Nights Hotel Accommodations Description of item(s) to be donated:	Charts Wine Gift Basket Educational Charts Microscope Books								
Please check appropriate option: Please contact me at the convention is will mail donation to Scott Jewell	• •								
before March 15, 2012.									
Signature	Date	phone							

Title e-mail

Return Silent Auction form by **March 15, 2012** to: Scott Jewell, ASB Meeting Planner, PO Box 1088, Mebane, NC 27302; <u>A2Zconvention@gmail.com</u>, 336/213-7373 cell, 336/421-0034 office, 336/421-3425 fax.



ASB 75th Anniversary Workshop Form

2012 Association of Southeastern Biologists April 4-7, 2012 Athens, GA

<u>Workshop Description</u>: All commercial workshops will be conducted during the meeting on a first-come first-served basis. Classroom style seating will be provided at no additional charge to the presenter. Each classroom will be set for a minimum of 50 participants. A screen, laptop and LCD Projector will be provided for each room. **One workshop per application please. Please complete the entire form!**

Company/Organization		
(Please list company name	as you wish it to appear on prin	ted materials)
Contact Address:		
Telephone:	Fax:	
Web site:		
Workshop Title:		
Please e-mail descripti	on to A2ZConvention@gm	<u>iail.com</u>
(Please list company name as you wish it to appear on printed materials)		
(Description will	appear on Website and Re	gistration Form)
Please indicate which tin	ne slot you prefer below:	
Pre-Conference Workshop: Wed 4pm-5:30pm Thurs 8:30am-10am Thurs 10:30am-12noon Thurs 1:30pm-3pm		murs r.sopm-spm

Deadline for workshop submission is 31 January 2012.

Hold Harmless Clause

The workshop presenter assumes all responsibility and liability for losses, damages and claims arising out of injury to the presenter's display, equipment and other property brought upon the premises of the convention facilities and shall indemnify and hold harmless the association agents, servants and employees as well as the ASB organization from any losses, damages and claims.

Upon acceptance by ASB, this signed application and Workshop Contract form becomes the contract for the 2012 ASB Annual Convention. Workshop presenter will be notified of their acceptance by letter no later than 31 Jan 2012.

Signature Date

Return form by **January 31, 2012** to: Scott Jewell, ASB Meeting Coordinator, PO Box 1088, Mebane, NC 27302; ASEACONVENTION-0094 to: Scott Jewell, ASB Meeting Coordinator, PO Box 1088, Mebane, NC 27302; ASEACONVENTION-0094 to: Scott Jewell, ASB Meeting Coordinator, PO Box 1088, Mebane, NC 27302; ASEACONVENTION-0094 to: Scott Jewell, ASB Meeting Coordinator, PO Box 1088, Mebane, NC 27302; ASEACONVENTION-0094 (ASEACONVENTION-0094) for the scott Jewell, ASB Meeting Coordinator, PO Box 1088, Mebane, NC 27302; ASEACONVENTION-0094 for the scott Jewell (ASEACONVENTION-0094) for the scott Jewell (ASEACONVENTION-0094)

Affiliate Societies Meeting with ASB APRIL 13-16. 2011

The following affiliate societies will be in attendance at the 2011 Annual Meeting. We anticipate an excellent diversity of paper and poster presentations. The societies and their contacts are listed below.

American Society of Ichthyologists and Herpetologists. **Southeastern Division**

Dr. Greg Fulling

e-mail: gfulling@geo-marine.com Website: http://www.asih.org

Beta Beta Beta Southeastern District I

Dr. Steven J. Coggin Department of Biology Catawba College Salisbury, NC 28144 (704) 637-4110 acoggin@catawba.edu

Beta Beta Beta Southeastern District II

Dr. Christi Magrath Dept. of Biological & Env. Sci. Troy University Trov. AL 36082 (334)670-3622 e-mail: cmagrath@troy.edu

Botanical Society of America Southeastern Section

Dr. Zack Murrell Department of Biology Appalachian State University Boone, NC 28608 (828) 262-2674 e-mail: murrellze@appstate.edu

Ecological Society of America Southeastern Chapter

Dr. Dean Cocking Department of Biology James Madison University Harrisonburg, VA 22807 (540) 568-6566; Fax (540) 568-3333 cockingwd@jmu.edu

Society of Herbarium Curators

Dr. John Nelson Department of Biological Science University of South Carolina Columbia, SC 29208 (803)777-8196 e-mail: nelson@biol.sc.edu

Society of Wetland Scientists South Atlantic Chapter

Dr. David Bailey U.S. Army Corps of Engineers CE-SAW-RG-L 69 Darlington Ave. Washington, DC 28403-1343 (901) 251-4469 David E Bailey2@usace.army.mil

Southern Appalachian Botanical Society

Dr. Lytton John Musselman Mary Payne Hogan Professor of Botany and Chair Department of Biological Sciences 110 Mills Godwin Building/45th St Old Dominion University Norfolk, VA 23529-0266 (757) 683 3595; Fax: (757) 683 5283 e-mail: lmusselm@odu.edu http://web.odu.edu/lmusselman

Southeastern Society of **Parasitologists**

Dr. Vince Connors. Secretary-Treasurer Dept. of Biology, University of South Carolina Upstate 800 University Way Spartanburg, SC 29303 (864) 503-5780

email: vconnors@uscupstate.edu

Southeastern Fishes Council

Dr. Henry Bart Tulane Museum of Natural History Tulane University Belle Chasse, LA 70037 Phone: (504) 394-1771 Fax: (504) 394-5045

hank@plato.museum.tulane.edu

Southeastern Microscopy Society

Cynthia S. Goldsmith Secretary, SEMS

e-mail: cgoldsmith@cdc.gov

Website: http://www.

southeasternmicroscopy.org

National Association of Biology Teachers

Lisa Walker Director of Conventions lwalker@nabt.org

SPECIAL REMINDERS FROM THE JOURNAL EDITOR

ASB BANQUET ATTENDANCE

Please keep in mind that recipients of ASB awards must be present at the annual ASB banquet to receive the award. Therefore, all applicants for ASB awards must attend the banquet to insure the presence of the winners.

MEMBERSHIP AND REGISTRATION UPDATE

All applicants for ASB research awards must be ASB members in good standing, and be duly registered for the annual meeting. If necessary, check with the Treasurer for verification before you apply.

Please make sure your membership status is up-to-date amply before the deadline for abstract submission and for annual meeting registration. Please be aware that mailing a check or money order for membership renewal to the treasurer and then trying to register online or by mail for the annual meeting on the same day does not work. Moreover, trying to pay for membership renewal online in tandem with registering for the annual meeting online does not work well either.

EXTRA ABSTRACT SUBMISSION

Besides sending abstracts of papers and posters to the Program Committee by January 27, 2012, anyone wishing to be considered for an award must send an abstract to the respective award committee chairperson in order to be considered. An abstract must be sent to the chairperson by January 27, 2012.

Preliminary Presentation Instructions

Paper (oral) presentations are allotted 15 minutes, must be in PowerPoint format, and must be brought to the meeting on a USB memory drive. Presenters will be required to load their presentations on the session's laptop computer at the beginning of the session. Poster presentations must fit in a 46" x 46" space and presenters should bring their own push pins for hanging their poster. Posters will hang for the entire day and presenters will stand with their posters for a designated one-hour period. More specific instructions for paper and poster presentations will be posted on the ASB website when abstract acceptance notifications are released.

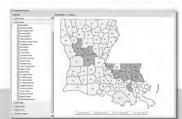
Questions? Contact Program Chair, Nicole Turrill Welch, nwelch@as.muw.edu.

Silver BIOLOGY

A biodiversity informatics software development company that specialized in online products and custom solutions for biological and natural history collections.

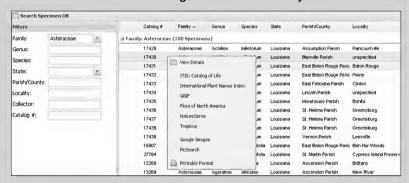
- * Interactive Web Applications
- * Digital Archiving of Specimen Sheets
- * Distribution Maps
- * Custom Software Solutions





Silver COLLECTION

Web Portal Software for Biological & Natural History Collections



SilverCollection is an interactive web portal for herbaria and other biological collections. It is a client-specific customized application for online access to specimen data. This application provides an interactive solution for curating, searching, and browsing your collection records. *More info at: collection.SilverBiology.com*

www.SilverBiology.com

contact@silverbiology.com

Association of Southeastern Biologists

Proposed Changes in the ASB Bylaws

Approved by the EC at the October 1, 2011 Interim Meeting

Present wording:

Article VII - Standing Committees

Section 1. The following standing committees shall serve the Association:

- F. Local Arrangements Committee
- J. Place of Meeting Committee

New wording:

Article VII - Standing Committees

Section 1. The following standing committees shall serve the Association:

- F. Annual Meeting Arrangements Committee
- J. Place of Meeting Committee Deleted 10/1/2011

Present wording:

- Section 2. Committee members, except for those who serve ex officio, shall be appointed by the President upon the approval of the Executive Committee. The composition and duties of the standing committees shall be as follows:
 - F. The Local Arrangements Committee shall make arrangements for the Annual Meeting to include arrangements for registration, exhibits, field trips, and social activities. The committee shall also provide information of available transportation, parking, and accommodations. Meeting statistics collected shall be forwarded to the next Local Arrangements Committee. Members of the committee shall include a Chair, selected by the host institution, and the Chairs of subcommittees he or she designates.
 - J. The Place of Meeting Committee shall recommend to the Executive Committee the locations for each Annual Meeting and shall actively seek potential host institutions throughout the southeastern states. The committee shall consist of three members appointed for terms of 3 years, with a member appointed annually and serving as Chair in the third year. The Meeting Coordinator shall serve on the committee Ex Officio.

New wording:

- Section 2. Committee members, except for those who serve ex officio, shall be appointed by the President upon the approval of the Executive Committee. The composition and duties of the standing committees shall be as follows:
 - F. The Annual Meeting Arrangement Committee shall assist the Meetings Coordinator in meeting audiovisual needs, arranging field trips, and managing the silent auction. The committee shall consist of the Meetings Coordinator as permanent chair, two members from the host institution, and three members appointed by the President for terms of 3 years, with one member appointed or reappointed annually.
 - J. Deleted 10/1/2011 Interim Meeting of the Executive Committee

Voting will be conducted at the annual business meeting.

ATBI Conference 2012 47

All Taxa Biodiversity Inventory (ATBI) Conference 2012 March 22, 23, and 24

We are proud to extend this **call for presentations** for the 15th installment of the All Taxa Biodiversity Inventory (**ATBI**) **Conference 2012**, presented by **Discover Life In America**. The purpose of this conference is to highlight the research, conservation and educational efforts being made to understand, manage and restore the unique biological diversity of Great Smoky Mountains National Park and beyond. In response to growing interest in the national ATBI movement, the scope of the meeting has been broadened to include representatives from across the region, continent and world.

You are invited to join us in Gatlinburg, Tennessee for Discover Life in America's 2012 ATBI Conference. Please consider presenting a paper, sharing your expertise in biodiversity, and/or being an active guest. We invite proposals for presentations, posters, and science, education and/or technology workshops on a broad array of topics pertinent to our professional community.

The Great Smoky Mountains National Park is considered by some to be one of the most biodiverse places in North America. It is here, in the midst of such species richness, that Discover Life in America (DLIA) is conducting an ongoing project to inventory all species that exist in the Park. The ATBI seeks to inventory the estimated 70,000-80,000 species of living organisms in Great Smoky Mountains National Park. The project continues to develop checklists, reports, maps, databases, GIS tools, and natural history profiles that describe the biology of this rich landscape to a wide audience. The species level of biological diversity is central to the ATBI, but the project also emphasizes exploration of this diversity in the context of broader ecological, conservation, and genetic relationships. While biodiversity research in the Great Smoky Mountains is the central theme of DLIA, 2012 conference participants are invited to present broadly on a variety of topics of related to the goals of the ATBI. These may include:

- · Studies of Great Smoky Mountains taxa
- Biodiversity studies of other National Parks and protected areas
- · Role of biodiversity research in conservation and education
- Species inventory and climate change
- The human footprint and change to biodiversity and community composition
- Application of technology, communication, and education in general biodiversity research

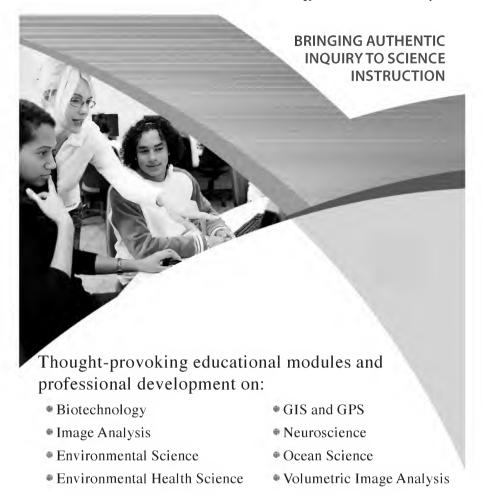
Be sure to share this email with your colleagues, partners, students—anyone actively involved in biodiversity science, education and conservation!

Abstracts (250 words) are due by February 3, 2012.

Submit your presentation proposal today by emailing the DLIA office: toda@.dlia.org.

For further information, please contact our office at 865-430-4756.

Or email: Todd P. Witcher (todd@dlia.org) or Heather MacCulloch (heather@dlia.org).





www.science-approach.com

ASSOCIATION OF SOUTHEASTERN BIOLOGISTS EXECUTIVE COMMITTEE MEETING WEDNESDAY, 13 APRIL 2011 HUNTSVILLE, ALABAMA

ATTENDANCE: 18 individuals attended the meeting

NAME
Patricia Cox
President
Don Roush
President-Elect
Jennifer Davis
Tom Wentworth
Conley McMullen
Tim Atkinson
CAPACITY
President
President
Past President
Secretary
Treasurer

Terry Richardson Membership Officer

John Herr Archivist

Ron Dimock EC Member-at-Large
George Cline EC Member-at-Large
Joey Shaw EC Member-at-Large
Christi Magrath EC Member-at-Large
Ashley Morris EC Member-at-Large

James Caponetti Journal Editor

Scott Jewell Meetings Coordinator

Zack Murrell Bioinformatics Committee Chair

Bill Ensign Student Research Award Committee Chair

Nicole Welch Program Chair Committee

I. Call to Order – President Patricia Cox called the meeting to order at 1:15 P.M., welcomed the new Officers and Executive Committee (EC) members, and thanked everyone for attending. Patricia then took a few moments to outline Robert's Rules of Order.

II. Approval of the Executive Committee Meeting Minutes

Motion 1. A motion was made that the minutes from the 11 September 2010 EC meeting in Athens, GA be approved as written. The motion was seconded and passed.

III. Reports Out of Sequence Due to Time Constraints

A) Meetings Coordinator/Local Arrangements Committee (Scott Jewell) – Scott reminded the EC that there was no local arrangements committee (LAC) this year. Although things have gone well, Scott reported that he feels there is still a need for the LAC. Among the reasons for this are the need for someone to coordinate the annual Silent Auction (generates significant revenue), assist with borrowing audio visuals, and coordinate field trips. Scott took care of local venders this year, and it worked out well. Students assisted Scott and were rewarded with complimentary

registration to the annual meeting as well as free admission to the Thursday evening social. Scott suggested that Marilyn Pendley should receive a special resolution for her help. Regarding local field trips, Joey Shaw mentioned that preparations had gone well. The most difficult aspect was writing descriptions and arranging times for field trips. Discussion followed.

- B) Place of Meeting Committee (Terry Richardson) The 2012 annual meeting will be held in Athens, GA. Scott Jewell announced that arrangements with hotels have been made and contracts signed. The 2013 annual meeting will be in Charleston, WV. Marshall University will be host school, and Embassy Suites will be host hotel. The 2014 annual meeting is scheduled for Spartanburg, SC. Mobile, AL is being considered for the 2015 annual meeting. Scott mentioned that throughout the SE, there is interest in hosting the ASB annual meeting. Discussion followed. It was suggested that it might be necessary to form a standing committee to oversee activities between the LAC and the Place of Meeting Committee. More discussion followed.
- C) SABS/BSA Affiliate Report (Lytton Musselman) The production of Castanea, the official journal of SABS is on the verge of becoming much more "electronic", which will improve the speed of publication. Bob Peet chaired a committee dealing with these changes. He, along with Lytton Musselman and John Pascarella (Castanea Editor in Chief) visited Allen Press (Castanea printer) to work out the details. Discussion followed. It was suggested that it might be possible for SABS to combine with ASB to manage membership, balloting, websites, meeting management, etc.

IV. Committee Reports

A) Program Committee (Nicole Welch/Howie Neufeld) – ASB received abstracts electronically for 380 presentations, 188 papers and 192 posters. To date, only 13 of those presentations have been withdrawn. Issues remained with members nominating themselves incorrectly for awards, but these incidents were fewer than last year, and will be resolved in 2011-2012. A few HTML-based issues arose in formatting the online and print program, but, again actions have been taken to prevent these problems next year. The Program Committee should consist of three members and must work closely with the Meeting Coordinator, Webmaster, and Brian Toone, who programs and manages the online abstract submission site.

Nicole mentioned that there have been growing pains regarding the process of enhancing the online submission process, and she identified and discussed a few things to do differently next year. Nicole mentioned that the committee now knows how to delegate duties better. Nicole also emphasized that there should be only three members on the committee (plus Scott Jewell), as any additional persons would be too many. Ashley Morris inquired about the possibility of all ASB members receiving meeting abstracts on jump drives. Nicole responded that this was a

terrific idea. Regarding abstracts, John Herr reminded everyone that when it comes to the hard copy, we should print only those abstracts of persons who actually gave presentations. This necessitates that section leaders report those individuals who did not present. Discussion followed.

B) Student Research Award Committee (Bill Ensign) – The committee reviewed and ranked all valid submissions for the two student research awards. The committee came to a consensus that the paper by Alex T. Fotis of the University of Louisiana-Monroe entitled "Living on the edge: trees promoting optimal conditions for woody seedling performance" should receive the Student Research Award. The committee also agreed that the paper by Evan Eskew of Davidson College entitled "Effects of flow regulation on anuran occupancy and abundance in riparian zones" should receive the Student Research Award in Aquatic Biology.

Bill recommended two changes for future committees. First, hard copies of the manuscripts should no longer be required. Second, manuscripts should be formatted in the style of *Southeastern Naturalist* (if not another journal). Discussion followed. Ashley Morris suggested that we add a reminder to the ASB website stating that manuscripts must be submitted, or a statement reminding everyone to make sure to read the requirements for each award.

Motion 2. Bill Ensign made a motion that the Student Research Award Committee's recommended changes be approved. The motion passed.

- C) Poster Awards Committee (Roland Roberts) The committee organized the judging of 27 posters submitted for the 2011 ASB student poster award. In addition, the committee considered strategies to improve the judging process and to make the requirements for the award more apparent to students and their mentors.
- D) Senior Research Award Committee (Ross Hinkle) A slightly revised ASB Senior Research Award was included in the October 2010, edition of SE Biology to clarify procedure for any paper submitted after the deadline. Dr. James Caponetti was very helpful in making the change and seeing that it got into the October issue. One qualified application was received, and, upon deliberations, the committee unanimously chose a winner for this year's award.
- E) Graduate Student Support Committee (Ed Lickey) Ten applications were received this year, from four schools, for the Graduate Student Travel Award. The total request exceeded \$5000.00. All 10 students met the criteria and, with some adjustments, all were awarded travel funds for a total of \$3890.00.

Patricia Cox stated that we should change the requirements so that a budget is included. Discussion followed, including the topic of a per diem for students. Joey Shaw suggested that perhaps we should request that

students demonstrate that they are attempting to be as cost effective as possible.

- F) Microbiology Award Committee (Judy Awong-Taylor) Members of the committee include Judy Awong-Taylor (Chair), Georgia Gwinnett College, Michael Land, Northwestern State University, and Chris Murdock, Jacksonville State University. Members of the committee communicated via email several times during the year. We are happy to report that this year we received eight abstracts for the ASB Research Award in Microbiology. The online submission format greatly facilitated the process. All members of the committee will be present at the 2011 ASB meeting to judge papers.
- G) Meritorious Teaching Award Committee (Dwayne Wise) The committee received no new nominations this year despite efforts to solicit nominations. Therefore, the award will not be given. Old nominations were retired and purged from the files.

Patricia Cox reiterated that were no nominations this year, and stated that this award does not have to be presented each year. Terry Richardson reminded the EC that it is one thing to not have anyone who deserves the award, but another thing to receive no nominations. Bill Ensign suggested that perhaps preliminary nominations could be made first. Then, a request for more information on the finalists could be made. Christi Magrath stated that current students are not appropriate for preliminary nominations, but perhaps colleagues are more fitting. Tom Wentworth mentioned that perhaps a committee could investigate potential winners and be proactive in soliciting nominations. Christi suggested that perhaps we could recognize nominations as well as the eventual winner. More discussion followed.

- H) Education Committee (Stephanie Songer/Irene Kokkala) The Education Committee workshop will be Friday, April 15, 12:00-1:25 pm. It will focus on the strategies and challenges of teaching biology online. Irene Kokkala, the CTLE Director at North Georgia College & State University, will share her experiences teaching online Medical Terminology and Gerontology, and helping faculty develop online instruction. Stephanie Songer, also of NGCSU, will share her experiences teaching Histology online, and Microbiology in online and hybrid formats. Ashley Morris, of the University of South Alabama, will share her experiences teaching Genetics as a blended class, and describe her experiences with podcasts vs. traditional lectures.
- I) Committee on Human Diversity (Sharryse Henderson) The committee has developed a workshop and luncheon for Thursday, April 14, 2011. Dr. Melissa McDaniels, Project Director for Michigan State University's National Science Foundation ADVANCE program will be the guest speaker and facilitator. The title of her presentation is "Mentoring for Inclusive Excellence in the 21st Century Scientific Workforce". Dr. McDaniels will present emerging research on mentoring that particularly

addresses experiences of women, underrepresented minorities, and persons with disabilities. Dr. McDaniels has developed a presentation that not only includes group discussion but also provides participants with tools to develop effective mentoring programs on their own college campuses.

- J) Conservation Committee (Patricia Sellers) With the aim of offering suggestions that could improve the functioning of the Conservation Committee (CC), its members reviewed and evaluated the ASB guidelines, the ASB website, and appropriate emails. Three of the six recommendations listed in this report are i) to ensure that the CC members are provided with a list of past activities of the CC or products thereof, including reports; ii) to modify the ASB website to allow for members to include a brief description of their conservation activities; and iii) to modify the website such that the ASB membership can contact the CC with ideas for environmental or conservation resolutions.
- K) Bioinformatics Committee (Zack Murrell) We brought together 25 institutions and 53 scientists to respond to the NSF ADBC solicitation for proposals. This proposal included an agreement with ASB to facilitate the development of workshops and symposia to be held in conjunction with the annual ASB meeting. The scientific theme for the proposal was using specimens to address ecosystem services measures. To support this aspect of the proposal, we were able to form partnerships with several state natural heritage programs and NatureServe. We await the decision from NSF.
 - Motion 3. Terry Richardson moved that we provide a booth for this committee. Ashley seconded the motion. Tim Atkinson stated that we can send out announcements on this topic or deal with it via email. Zack mentioned that it might be possible to provide funding to ASB for booth space. Joey Shaw suggested that Zack might give a plenary talk on the subject at a future ASB meeting. Zack countered that someone nationally known in this area might speak. The original motion carried unanimously.
- L) Nominating Committee (Patricia Cox) The nominating committee was composed of Patricia Cox (chair), Don Roush, and Christi Magrath. Information on each candidate was gathered and submitted to SEB for publication. The nominees are as follows:

Vice President

Zack Murrell - Appalachian State University
Randy Small - University of Tennessee at Knoxville

Treasurer

Tim Atkinson - Carolina Biological Supply Company

Members-at-Large

Chris Gissendanner - University of Louisiana at Monroe Irene Kokkala - North Georgia College and State University Christi Magrath - Troy University Roland Roberts - Towson State University M) Resolutions Committee (Don Roush) – The committee prepared a resolution recognizing the University of Alabama at Huntsville for hosting the 72nd annual meeting of ASB. This resolution was presented for a vote of approval to the membership at the annual business meeting held on Friday, April 15, 2011.

Don discussed a few changes that were needed on the Resolution.

<u>Motion 4.</u> Terry Richardson moved to accept the resolution as amended. Joey Shaw seconded the motion. The motion passed. Jim Caponetti asked that the changes be sent to him for publication.

- N) Publications Committee (Ron Dimock/Randy Small) The committee, in conjunction with the EC, helped determine the feasibility, cost-effectiveness, and appeal to the membership of ceasing to publish Southeastern Biology in hard copy. Discussions initiated in Asheville in 2010 culminated in the conversion of SEB to a very attractive, skillfully edited, pdf-format newsletter-journal now available online at the Association's web site. This process occurred in parallel with discussions with the publisher of Southeastern Naturalist, Joerg-Henner Loetz, of the potential to make SENA the official printed journal of ASB, and perhaps available only through membership. These discussions will continue in Charleston, WV.
- O) Member Benefit Committee (Terry Richardson) The committee considered ways to enhance the benefits for members of the Association. A proposal was drafted for consideration by the Executive Committee on April 13, 2011 whereby Southeastern Naturalist (SENA) would be adopted as the "official journal of ASB." Members would be able to subscribe to the journal at a reduced price. The plan also calls for the Association to establish a second journal that would feature refereed papers from fields of biology not treated in Southeastern Naturalist. The journal too would be offered to members of the Association at a reduced price.

V. Old Business

- A) Southeastern Biology Converted to an On-Line Journal as of January 2011 – Patricia Cox reported that SEB is entirely online now. Patricia said that if SEB had been a refereed journal, perhaps the decision would have been different.
- B) ASB and Southeastern Naturalist (SENA) Terry Richardson, Don Roush, and members of the Publications Committee directed a discussion on this topic. Information was presented to members of the EC in the form of a three-page document titled, "Proposal to Offer Reduced SENA Subscription Rates as an ASB Membership Benefit." It was stated that SENA and an additional journal could be the official journals of ASB, with our society subsidizing one of these and the other being carried by our dues rate. Discussion followed. It was proposed that

initially the new journal may appear once a year. Terry pointed out that we will need Constitution and Bylaws changes once these journals are officially adopted. More discussion followed. Joey Shaw asked Tim Atkinson what he thought about the budget. Tim replied that the proposal is basically sound.

C) ASB and "Unnamed" Cellular/Molecular Style Journal – Don Roush reported that Joerg-Henner Lotze's (publisher of *Northeastern Naturalist*) only reservation is that the publishers don't currently have an editorial board for these subjects. Ashley Morris asked if our journal will emphasize the *southeastern* US or the *eastern* US. Don stated that although we will continue to be the Association of Southeastern Biologists, we will pull papers from the northeast as well. Discussion followed.

<u>Motion 5.</u> Terry Richardson moved to accept *Southeastern Naturalist* and an "unnamed" Cellular/Molecular Journal as the official publications of ASB. Don Roush seconded the motion. Motion passed.

D) Action Item from September Meeting – John Herr circulated a list of proposed changes to the ASB Bylaws. John reviewed the proposed changes, which Patricia Cox placed on an overhead projector. John also commented on the ASB Leadership Guide. Discussion followed. Membership will vote on the proposed changes at the Friday Business meeting, 15 April 2011.

<u>Motion 6.</u> Terry Richardson moved to accept the proposed changes to the bylaws. The motion was seconded and passed.

VI. New Business

A) Changing the Designation of the Program Committee to a Standing Committee

It was decided that the Program Committee should remain an *ad hoc* committee for the time being.

B) Producing a Hard Copy of SEB for the Archives – John Herr and Jim Caponetti proposed that we wait until the end of each year to make hard copies of our journals for the archives as it will be more cost effective. Additionally, they asked if we will want hard copies for libraries. Discussion followed.

Motion 7. Terry Richardson made a motion to print six copies per year. Tim Atkinson inquired about what would happen when John is no longer associated with the University of South Carolina, as they will be making the hard copies. Ashley Morrris suggested that we check with Kinkos. Terry suggested that perhaps Joerg-Henner Lotze (publisher Northeastern Naturalist) would print them for us. Others agreed that this

seemed reasonable. The original motion to print six copies was seconded and passed unanimously.

VII. Affiliate Society Reports

- A) BBB SE District 1 (Steve Coggin) The Southeastern region of Beta Beta Beta will meet with ASB in Huntsville, AL, April 13-15, 2011. Tri Beta will be well represented by members and faculty advisors from District I and District II. We expect 200 Tri Beta participants at the meeting. Students will present 25 papers and 40 posters, go on field trips, and compete for awards for papers, posters, outstanding advisor, chapter history, most delegates and the travel award.
- B) BBB SE District 2 (Christi Magrath) see above (committee was cochaired with Steve Coggin). Christi thanked ASB for support, and stated that all is going well.
- C) AAAS (Tim Atkinson) no report
- D) AIBS (Stephanie Songer) no report
- E) American Society of I&H, SE Division (Greg Fulling) no report
- F) ESA SE Division (Joel Gramling) no report
- G) NSCA (Alexander Krings) Activities of NSCA continue to benefit natural history collections and systematists associated with ASB in many ways, but particularly through the emphasis on advocacy and legislation to increase visibility and funding for systematics research. Although efforts to secure a Presidential Executive Order for the Preservation and Use of Science Collections have not yet succeeded, elements of the proposal were incorporated in a recent White House OSTP directive. In addition, an NSF effort, strongly supported by NSCA, to create a national initiative to digitize biological collections resulted in the ADBC solicitation to which numerous southeastern systematic collections applied for support.
- H) SHC (Mike Vincent) no report
- SSP (Charles Faulkner) no report
- J) SWS South Atlantic Chapter (Dianna Hogan) no report

VIII. Officer's and Executive Committee Reports

A) President (Patricia Cox) – During my 2nd year as President of ASB, continued discussions concerning the future of SEB and collaborations with SEN resulted in a second member survey. Following those results, the difficult decision was made to halt the printing of hard copies of Southeastern Biology and switch it to an on-line publication. The Publication Committee and Member's Benefit Committee along with the

ASB Treasurer have been in negotiations with SEN and hopefully sometime in the near future an agreement can be reached for this and the "new" molecular type journal. There have also been changes to several ASB committees. To increase our national awareness, I represented ASB at the Botanical Society of America Meetings in Providence RI. I have also provided a presidential "view from here" article for two issues of *Southeastern Biology* (October 2010, April, 2011).

- B) President Elect (Don Roush) The responsibility of the President elect is to arrange for the plenary speaker for the annual meeting. The speaker for the 72nd annual meeting of ASB will be Dr. Gary Machlis. Dr. Machlis is the first science advisor to the Director of the National Park Service. His Presentation will focus on the Park Service response to the BP Deep Water Horizon oil spill in the Gulf of Mexico. Other responsibilities were to shadow the President and to assist the President as called upon. In this role assistance was provided to complete the slate of nominees for members at large to the EC for election at the annual business meeting. Advice and counsel was provided to the President on several issues presented for action.
- C) Vice President (Jennifer Davis) The major responsibility for the Vice President this year was planning and hosting the Patron and Exhibitor Breakfast in conjunction with Scott Jewell, the Meetings Coordinator. The Breakfast is arranged for Friday April 15, 2011 in North Hall, Salon 5, of the Von Braun Center in the Embassy Suites Hotel, Huntsville, Alabama with 17 guests expected to attend.
- D) Secretary (Conley K. McMullen) I began my duties as Secretary of ASB at the Spring Executive Committee Meeting held Saturday, 10 April 2010 in Asheville, NC. Since that time, I have worked with President Patricia Cox on a variety of ASB matters and communications, including minutes from the previously mentioned EC meeting. In preparation for the 2011 meetings, I coordinated submission of the 2010-2011 Officer Reports, Appointed Position Reports, and Committee Chair Reports; and I made 25 copies of each of these reports for circulation at this year's EC meeting. I also prepared certificates and letters of thanks for outgoing Officers and Committee Chairs.
- E) Treasurer, Business Manager (Tim Atkinson) Tim provided members of the EC with handouts outlining receipts and expenses. At the end of fiscal year 2010 (31 December 2011), the Association showed a net decrease of \$29,603, with an ending balance of \$28,170. This net decrease was primarily due to the cost of the 2010 meeting in Asheville, North Carolina (lost approximately \$40,000). Tim gave a brief report as to why the Asheville meeting was so costly. Patricia Cox added that the LAC for the Asheville meeting refused to work with Tim and Scott Jewell. Tim mentioned that we had to pull \$31,343 out of enrichment funds to pay costs last year. Discussion followed.

- F) Enrichment Fund Board (W. Michael Dennis) Committee Chair Michael Dennis monitored the activities of the Enrichment Fund during the past year. This included coordination with ASB Treasurer, Tim Atkinson on the amount of funding from the previous Executive Committee's fund raising challenge; developing a fund raising initiative from attending members at the Huntsville 2011 meeting which was approved at the Fall Meeting of the EC; and arranging for the ASB Outstanding Biology Teacher Award sponsored by the Enrichment Fund.
- G) Archivist (John Herr) In May 2010, archived items were taken to the Hargrett Library at the University of Georgia. A new category was added to the ASB Archive System, viz., "Series 6, item 6.7 Incorporation Papers". After the 2010 Annual Meeting of the Association, the archivist discovered by accidental curiosity that the corporate, tax exempt status of the Association had been compromised and stood the chance of being revoked by the North Carolina Department of State. This unfortunate circumstance was reported to President Patricia Cox and to Michael Baranski who the Association had named as the Registered Agent of the ASB Corporation in 1996. These two individuals took the steps necessary to place the Association in compliance with the laws governing tax-exempt organizations.
- H) Journal Editor (Jim Caponetti) Allen Press has done an excellent job in producing Southeastern Biology for the past 10 years. Recently, increasing journal production costs prompted some members of the Executive Committee to suggest that issues be placed online only. This led to a poll of the membership by e-mail. About 90% voted to place Southeastern Biology online only, and to investigate partnering with The Humboldt Institute to provide ASB members the option of receiving hard copies of Southeastern Naturalist and a new cellular/molecular journal. While discussion of the latter continues, the Journal Editor has placed Southeastern Biology online only beginning with the January, 2011, issue. This year's invited research paper is by Dr. Lafayette Frederick and it appears in the January, 2011, issue of Southeastern Biology.
- Web Editor (Ashley Morris) I have completely rebuilt the ASB website, and launched new ASB Facebook and Twitter pages. Facebook has been quite successful, although Twitter has been less so. I recommend that we delete the Twitter page, but continue to develop relationships with the Facebook community through creative means (e.g., contests). The amount of work required to develop and maintain these outlets sufficiently is more than one person can effectively handle. As a result, I recommend working with graphic design or marketing students to improve our presence online through the website. I also recommend we streamline the email response process through the website.

Ashley will speak further on this issue at Saturday's EC meeting (16 April 2011).

- J) Book Review Editors (Melissa Pilgrim) We were successful in getting the ASB book review process current and active. Since working towards getting the review process moving again, seven book reviews have been completed and three books are in review.
- K) News Editor (Ricky Fiorillo) I received only one news item. It is clear from past years that the only way to increase news submission is by sending a news solicitation email directly to the membership. In the past, this has worked well for us; however I do not have access to the email list.
- L) Past President's Council and Past President's Report (Tom Wentworth)
 At the request of President Patricia Cox, the Past Presidents' Council
 has been charged with helping to establish guidelines and processes for
 the John Herr Lifetime Achievement Award. Work on this effort is
 ongoing.

Tom completed a variety of tasks during 2010-2011, including serving as Chair of the Past-Presidents' Council. Tom worked closely with President Pat Cox, Archivist John Herr, and others to ensure that tasks related to the business of the Association were carried out. Tom also published his Past President's Address in the October 2010 issue of *Southeastern Biology*.

M) Membership Officer (Terry Richardson) – Tim Atkinson (ASB Treasurer), Scott Jewell, and I, Terry Richardson, (ASB Membership Officer) are working on a tool for use by the Treasurer and Membership Officer to perform more efficient and effective electronic communication, recruitment, and surveys.

Terry stated that the following members had requested Emeritus Status: Ken Dodd, Frances M. Gardner, Jarvis Hudson, Floyd Scott, Clete Sellers, Ralph L. Thompson.

<u>Motion 8.</u> Conley K. McMullen made a motion to accept these individuals as emeritus members. The motion was seconded and passed.

N) Members at Large – no reports.

IX. Announcements

George Cline reported that there are two new faculty members this year in his department at Jacksonville State University. One conducts research on bamboo, the other on snails.

X. Adjournment – Having no other business items, Patricia Cox thanked everyone for attending and adjourned the meeting at 5:30 P.M.

Respectfully submitted, Conley K. McMullen, Secretary 4 July 2011

ASSOCIATION OF SOUTHEASTERN BIOLOGISTS EXECUTIVE COMMITTEE MEETING SATURDAY, 16 APRIL 2011 HUNTSVILLE, ALABAMA

ATTENDANCE: 15 individuals attended the meeting

NAME
Don Roush
Patricia Cox
Past President
Vice President
Vice President
Conley McMullen
Tim Atkinson
John Herr
President
Archivist

Roland Roberts EC Member-at-Large
George Cline EC Member-at-Large
Joey Shaw EC Member-at-Large
Christi Magrath EC Member-at-Large
Ashley Morris EC Member-at-Large

James Caponetti Journal Editor

Scott Jewell Meetings Coordinator
Ginger Bayless A2Z Co-coordinator
Nicole Welch Program Chair Committee

- I. Call to Order and Welcome New EC Members President Don Roush welcomed our new members to Council. Newly elected members included Zack Murrell (Vice President), Irene Kokkala (Member at Large), and Roland Roberts (Member at Large). Don also welcomed newly re-elected member Tim Atkinson (Treasurer).
- II. Report on Huntsville 2011 Scott Jewell gave a preliminary report on this year's meeting in Huntsville, AL. He thanked all who assisted, and mentioned that he had a great group of helpers. Scott reported that there were 722 attendees in total. There were 371 attendees at the Thursday evening Social, and 260 attendees at the Friday evening Banquet. Scott mentioned that the numbers were up, which was nice to see. Patricia Cox mentioned that the meals had been good. Tim Atkinson stated that the Enrichment Fund had taken in at least \$3000 at the ASB booth, and at least \$750 at the registration booth. Don suggested that next year, we once again place everyone's institution on their badges. Scott finished by saying that it had been a great meeting.
- III. Report on Athens 2012 Scott Jewell reported that Kim Rogers was attending the Huntsville meeting as a representative from Athens, GA, the 2012 annual meeting site. Scott mentioned that pricing is good for the upcoming meeting, which will be held on the University of Georgia campus at the Georgia Center. Kim will be heading back and telling the folks at the

Georgia Center that there will be lots to prepare. Discussion followed on poster sessions, poster sizes, poster judging, etc. Roland Roberts suggested that ASB awards be separated into undergraduate and graduate sections. Nicole Welch mentioned that we need to rethink posters in general, as some were extremely poorly done in Huntsville. Tim Atkinson reminded everyone that we don't have to present poster awards if none are worthy.

IV. Report from the Past President – Patricia Cox reported on attending the Past President's meeting where the budget was discussed. Discussion of online journals versus hard copies followed. Ashley Morris inquired about the possibility of publishing just one issue (the program issue). We can do this, but Allen Press would probably charge \$10,000-12,000 for that one issue. Scott Jewell stated that he found where we can get copies (University of South Carolina) at approx. \$5 per copy. Discussion followed regarding this year's program. Joey Shaw suggested that it would be better to include all authors along with the titles of the presentations. Patricia stated that at the Interim Meeting in September, we will look at the quality of SEB hard copies.

V. Old Business

- A. Program Committee Nicole Welsh reported that Program Committee co-chair Howie Neufeld is getting a quote for the cost of producing program hard copies at Appalachian State University. Regarding the makeup of the committee, Nicole will select a third member if needed, and Don Roush will officially appoint this person to the committee.
- B. Web Editor Report Ashley Morris reported that we will no longer be using "twitter." Facebook use was discussed. The number of views of our Facebook site was discussed as well. Most views are coming on the "wall." And, most are coming through our ASB website. The medium number of daily views has been nine. Ashley recommended that we try to increase usage through advertizing. Discussion followed. It was suggested that perhaps Ashley could give a workshop on use of social media. Don Roush and the other EC members congratulated Ashley on a job well done! Ashley mentioned that our web page has had 5688 visits (98% from USA). New visitors represented approximately half of these visits. Peaks in visits corresponded to announcements regarding our annual meeting. Windows users represented approximately 75% of the visits. Average time on our site is only about one minute. Ashley pointed out that we can also see usage state by state.
- C. Conservation Committee (Discussion of the CC Recommendations in the Report to the EC meeting on 13 April 2011) — Committee recommendations were read and discussed. Pete Van Zandt, the incoming chair of the committee will be asked to keep the ball rolling regarding these issues.

VI. New Business

A. Charge to Publication Committee: Joey Shaw, Jim Caponetti, and Ashley Morris – Members of this committee were charged with looking at editorial policies of our new journal. They should have more information to report at our Interim meeting in September. One of the first priorities will be to develop the Editorial Board for our new journal. Additionally, a descriptive paper on the types of manuscripts to be reviewed, etc. should be developed. These items should be ready for the Athens, GA meeting next April. Ashley Morris suggested that the committee would shoot for all of this by the Interim meeting.

B. Annual Meeting Arrangement Committee

Motion 1. John Herr made a motion that he be charged with putting together a proposal to establish an Annual Meeting Arrangement Committee with Scott Jewell. This would allow dissolving the Place of Meeting Committee and the Local Arrangements Committee. Discussion followed. The motion was seconded and passed.

- C. BBB Christi Magrath was thanked for her service as BBB co-chair. Christi, in turn, thanked Scott Jewell, Tim Atkinson, and others for their support of BBB. She mentioned that there had been 40 posters and 25 talks at this year's meeting.
- D. ASB Fellows John Herr inquired about what had been done regarding establishing a committee to study who is eligible to become an ASB Fellow. Don Roush replied that he will look into that for John.
- VII. Announcements The Interim EC Meeting will be held on September 17, 2011.

Motion 2. John Herr made a motion to allow Scott to determine the meeting site for the Interim meeting to be held in September. The motion was seconded by Joey Shaw and passed.

VIII. Adjourn – Having no other business items, Don Roush thanked everyone for attending.

<u>Motion 3.</u> Don made a motion to adjourn. The motion was seconded and passed.

Respectfully submitted,

Conley K. McMullen, Secretary 5 July 2011

INVITED RESEARCH PAPER

Effects of Forest Fires on Small Mammal Populations in the Lake Saganaga Area, Minnesota/Ontario Border

David A. Etnier¹

Author's Introduction - Invited papers appear to offer several perks relative to directly submitting a research paper to a chosen journal: (1) the paper is very likely to be accepted; (2) I will not need to decide whether to beg the journal editor to defray page costs, ask my department head to assume page costs, submit a proposal to a granting agency for page costs, or just avoid all of that and pay page costs out of pocket (I find that one of the two biggest misconceptions regarding science is that a significant monetary reward for the author(s) is associated with publishing a paper in a scientific journal); and (3) the paper is not likely to go through the rigorous (and often painful) peer review process required by most journals. If a few of you readers are familiar with my name, why, you might ponder, is Etnier offering a paper on small mammals rather than a description of a new fish or caddisfly species? (Misconception twowhen a scientist describes a new species, they often name it after themselves.) I offer this explanation. My interest in biodiversity was initiated long before that word came into vogue. By the age of 8 or 9 I had started to generate my life list of birds (since abandoned, but I am still an active "birder"), reared from caterpillar to adult most of the butterflies and saturnid (Cecropias, etc.) moths that inhabit southern Minnesota, and had developed a scrap book of animal pictures entitled "the book of knowledge". My career as a geological engineer at the University of Minnesota ended after one year of modest success when I flunked a fourth quarter nuclear physics course in fall of 1957 and decided a change of majors would be prudent. An advisor in the Forestry Department, after hearing of my interests, suggested that the Fish and Wildlife Management curriculum might be a better fit. He certainly hit the mark. My first required course, and my first "ology" course, was Dendrology. All I remember from the lectures was that most deciduous trees had leaves that were "downy and pubescent beneath and green and glabrous above". But on field trips we learned the common and scientific names of the trees and shrubs of Minnesota. What fun! Mammalogy required each of us to present study skins of ten species of local mammals. I was so fascinated with the cryptic world of small mammals that I eagerly helped my soon-to-be-wife. Liz Lewis, the Fish and Wildlife Management program's first female major, with her collection for the same course the next year. Liz's family owned a small island on one of Minnesota's border lakes (Lake Saganaga in northern Cook County). As our relationship progressed to marriage, and we both envisioned spending considerable time on "Sag" during the summers, I thought of the wonderful opportunities to study biodiversity in that remote area. My work with caddisflies from the Lake Saganaga area, Itasca State Park where I completed a special problems course on the caddisflies of the Park, access to

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the large caddisfly collection in the University of Minnesota Entomology Department, and light trap samples from Gypsy Moth surveys (but full of caddisflies) resulted in enough information on Minnesota caddisfly distribution to submit my first paper, a preliminary checklist of the Trichoptera of Minnesota (Entomological News 1965(1). In fall of 1965 I joined the faculty of the Department of Zoology at the University of Tennessee, At Tennessee, the 1968-1991 period resulted in publication of an additional 42 papers. My students and I were well aware of the woeful lack of knowledge concerning Tennessee fishes, and many of these papers were on the distribution of fishes from various river systems throughout the state, which I often co-authored with the graduate student doing the study as a thesis project. This fish survey work continued, culminating in the 1993 publication of the Fishes of Tennessee, co-authored by Wayne C. Starnes, with photographs by Richard T. Bryant (University of Tennessee Press). Subsequent to that milestone, my research has resulted in an additional 14 publications on southeastern fishes and 10 on eastern and central North American caddisflies; additional papers on both groups are in various stages of publication, and hopefully will continue for some time.

Small mammal trapping in the Lake Saganaga area resulted in a 1989 publication on small mammals of the Boundary Waters Canoe Area in Canadian Field Naturalist 103(3), based on 6,719 trap nights of effort from the early 1960s through 1987. So when fires decimated the Sag area during the summer of 1995, Liz and I decided that my knowledge of the local small mammal fauna would be good background for the following study on the recovery of that fauna.

Abstract - The Romance Lake fire of late summer 1995 consumed much of the forested area on the southeast side of the Minnesota portion of Lake Saganaga. In the same summer another fire consumed the forest on Little Spruce Island on the Ontario side of the lake. A long-term study to monitor the impact of these fires on small mammal populations was initiated in late summer of 1996 and terminated after the 2006 collecting season when the Ham Lake Fire of spring 2007 re-burned 2 of the 3 study areas. Sorex shrews did not reappear until the second year at the 2 Minnesota mainland sites (Areas 1 and 2). In Area 1 only a single Sorex out of 180 captures was taken in the first 5 years; in the remaining 6 years shrews comprised 7.3% of captures, and were absent only 1 year. In Area 2. Sorex shrews were absent in only the 1st and 3rd years, and comprised 45 of 362 captures (12.4%) after appearing in year 2. On the Little Spruce Island site (Area 3) Sorex did not appear until year 4 (1 specimen), 7 were taken in years 5 and 6, and none was captured during the last 5 years of the study. Blarina brevicauda was captured only during years 3 and 4 at both Area 1 and Area 2; it was not taken at Area 3. Myodes gapperi, revealed by a previous study to be the dominant small mammal in forested sites in the same area, maintained its dominance for the first year of the study at both mainland sites; it was codominant with Peromyscus maniculatus gracilis at these sites during year 2, and then gradually yielded dominance to Peromyscus through year 9. The 2 species were co-dominant during years 10 and 11. At the island site, Myodes was dominant during years 1 and 2, abundant during year 3, represented by a single capture in year 4, absent during years 5-10, and co-dominant (31 specimens) with Peromyscus (44 specimens) in year 11. Area 2, a moist forest, had more species per year (4-6 after year 4) and more total species (12) than the more xeric Area 1 (3-5 per year after year 4) and 9 total species. Area 3 (small island) had 1–3 species after year 4, and only 4 total species. Two of the extremely rare species in the area, *Sorex hoyi* and *Phenacomys ungava*, were not taken until year 11 at Area 1 (1 and 4 captures, respectively). At Area 2 *S. hoyi* appeared only during year 10 (1 specimen), and *Phenacomys* was present during years 9 and 10 (1 specimen each year) and year 11 (5 specimens). Additional uncommon species taken were *Sorex arcticus* (2 total specimens, Area 1, years 6 and 8), and *Microtus chrotorrhinus* (Area 1, 2 total specimens, years 1 and 9; Area 2, 3 total specimens, years 2 and 9).

Introduction

Small mammals of the Lake Saganaga area are reasonably well known based on a 7000 trap-night, 20-year survey (Etnier 1989, subsequently referred to as the 1989 study). In late summer of 1995, the Romance Lake Fire burned forested areas on the southeast portion of the lake, mostly on the Minnesota side, and a midsummer fire burned forests on Spruce and Little Spruce islands on the northwest portion of the lake, in Ontario. None of the 11 sites surveyed during the 1989 study was burned by these fires, but 8 of those sites were just north of James Bay, on the peninsula formed between the west side of Lone Pine Bay and the eastern shore of the main lake (see Fig. 1). Most of the shoreline of James Bay was burned. In the 1989 study 3 modest sized islands, none of which burned, were surveyed in the Ontario portion of Lake Saganaga. The Romance Lake Fire provided an opportunity to study post-fire small mammal recovery in areas similar to and geographically proximate to those sampled during the 1989 study.

Materials and Methods

Small mammals were taken with traditional mouse snap traps baited with peanut butter. Fifty traps were deployed per area and were first tended the following day. The traps were checked daily during the middle of the day for captures and re-baited if necessary. During the first 3 years of the study, the approximately 50 traps were tended for 5 days (240-256 trap-nights per area per year). During the final 8 years of the survey, effort was decreased to 4 nights, 50 traps per night, 200 trap-nights of effort per area per year. Traps were set and tended during late summer, with annual visits extending from 9 July through 5 September (Area 1), 14 July through 5 September (Area 2), and 1 August through 12 September (Area 3). Common species were identified and discarded. Skeletons of rare and uncommon species were dried and subsequently deposited in the collections of the James Ford Bell Museum, University of Minnesota, Minneapolis; the University of Tennessee Zooarcheological skeletal collection, Knoxville; and The Burke Museum of Natural History and Culture, University of Washington, Seattle, Methods for finding traps and preventing loss of traps are detailed in Etnier (1989). Walshe (1980) was the primary guide for identification and appropriate names for vascular plants mentioned. Notes on vegetation, taken annually during the trapping sessions, were brief and qualitative.

Site Descriptions

Two sampling sites were chosen in James Bay (Fig. 1). Area 1 was an upland forest. Area 2 was a poorly drained, lowland forest adjacent to and just east of Area 1. Both areas are within 0.75 to 2.00 km south of the 8 sites sampled during the1989 study in and near Lone Pine Bay (Fig. 1). Area 1 was accessed by entering James Bay coming from the north at the first entrance and heading east into the bay. Bear south (right) of the first small island encountered, and start on the rocky point (48.2135° N, 90.8725° W) just past the island. Traps were set in the upland area along a circular route east and then south of the access point. Area 2 is directly east of area 1, and traps were set along both sides of the low valley that extends south about 150 m and then turns to the east. Traps were set about 200 m into the east arm of the valley, and started at the lakeshore (48.2132° N, 90.8709° W), where the boat was parked in the shallow, weedy bay. Groundwater was within 2 ft of the surface at Area 2, even in late summer.

Canopy trees in both areas 1 and 2, based on presence late in the study and surveys of similar, adjacent, non-burned areas, consisted predominantly of a mix of *Pinus banksiana* Lambert (Jack Pine), *P. strobus* L. (Eastern White Pine), and *P. resinosa* Solander es Alton (Red Pine) in that order of abundance, along with *Abies balsamea* (L.) Miller (Balsam Fir), *Populus tremuloides* Michaux (Quaking Aspen), and *Betula papyrifera* Marshall (White Birch). Less abundant trees included *Populus grandidentata* Michaux (Bigtooth Aspen), *Thuja occidentalis* L. (Northern White Cedar), and *Picea glauca* (Moench) Voss (White Spruce). *Picea mariana* (Miller) Britton, Sterns and Poggenburg (Black Spruce) and *Fraxinus nigra* Marshall (Black Ash) were more common in Area 2 than in Area 1. Woody shrubs in Areas 1 and 2 were *Acer spicatum* Lamarck (Mountain Maple), *Alnus incana* subsp. *rugosa* (Du Roi) R. T. Clausen (Speckled Alder), and *Salix* sp. (willows). Granite bedrock, boulders, and rubble dominated the substrate, with occasional basalt boulders present, glacially transported to the area from farther north.

Area 3 is Little Spruce Island, with traps set starting at the point closest to Spruce Island (western corner of Little Spruce, 48.2307° N, 90.9502° W) and occupying the southwestern fourth of the island or so, both along the lake and up to the middle of the island. The island area is approximately 7 hectares (3 acres). This island was not visited prior to the fire, but similar sized islands on the lake contain forests similar to those discussed above except that Jack Pine is typically rare or absent.

All trapped areas were burned in summer of 1995, areas 1 and 2 by the Romance Lake Fire, and Area 3 by a fire that affected only Spruce and Little Spruce islands. High intensity fire is an apt descriptor for both fires, with heat sufficient to "flake" the granite bedrock and boulders, and to burn nearly all of the accumulated "soil" at all sites.

Results

Vegetational succession

In Area 1, by late July 1996, one year after the fire, a ground cover dominated by fruiting liverworts also included aspen and birch suckers, *Eurybia macrophylla* (L.) Cassini (Bigleaf Aster), *Geranium bicknellii* Britton (Bicknell's Geranium), and *Capnoides sempervirens* (L.) Borkhausen (Pink Corydalis).

Some tiny Jack Pine and spruce seedlings were noticed. A few live White Pines and Red Pines survived along the west shore of the study area, and most of the dead, burned trees were standing. During the sampling period of 17-21 July 1996 heavy winds felled most of the standing dead trees. During the 1997 sampling period seedling spruce and Jack Pines were much more evident, liverworts persisted, horsetail (Equisetum sp.) was noticed, and herbaceous vascular ground cover was primarily Epilobium angustifolium L. (Fireweed) and Fallopia cilinode Michaux (Fringed Bindweed). By summer of 1998, only three live trees remained, all Red Pines, A few vigorous blueberry bushes (Vaccinium sp.) were present near the boat landing area, and the few Rubus idaeus L. (Red Raspberry) present were fruiting. Aspen were dominant and up to nearly 2 m tall, as were the White Birch and willow. Jack Pine seedlings had reached mean heights of about 25 cm. Red Pine and spruce seedlings were 8-15 cm tall. Liverworts had nearly disappeared. A heavy wind during early July of 1999 felled 2 of the 3 living Red Pines and left only ten dead trunks standing. Liverworts were not apparent, and the surface was dominated by horsetail and a moss. Some Jack Pines were 1 m tall, By 2002, Jack Pines and Quaking Aspen continued to be co-dominant at both Areas 1 and 2, with the former up to 3 m tall. and the latter reaching 4.5 m. The remaining living Red Pine at Area 1 fell. The abundance of deadfalls and the extremely dense stands of aspen and Jack Pine at both Areas 1 and 2 made walking and visibility difficult. During the 2003 trapping effort Jack Pines averaged 3 m high, with some up to 4 m. Bigtooth Aspen was seen for the first time. White Pine. Red Pine, and spruce seedlings were scarce, and averaged about 0.6 m tall. Castor canadensis Kuhl (North American Beaver) had started to harvest Quaking Aspen that were about 5 cm basal diameter. In 2004, spruce, Red Pine, and White Pine, in that order of abundance, were 30-100 cm tall and very noticeable. In 2005 the conifers showed additional growth, with some Jack Pines to 5 or 6 m tall; 13 were counted that were bearing cones. During the final year of the study, areas 1 and 2 continued to be very similar, with Jack Pines, aspen, and birch reaching 6 to 8 m tall, Red Pine, White Pine, and Black Spruce were abundant but mostly 1 m tall or less, and Balsam Fir had still not made an appearance.

Area 2 ground cover was similar to that of Area 1 during 1996, except horsetail was co-dominant with liverworts, Arabis canadensis L. (Sicklepod) and Apocynum androsaemifolium L. (Spreading Dogbane) were common, and spruce and Jack Pine seedlings were not noticed. Impatiens capensis Meerburgh (Orange Jewelweed) was present in a tiny, unburned area at the south edge of the site. In 1997 Fringed Bindweed was dominant, horsetail occupied more area than liverworts, and Bigleaf Aster and Fireweed were common. In 1998, spruce seedlings, up to 20 cm tall, were more abundant than the Jack Pines (mean height 60 cm); aspen and the less abundant White Birch and willow were as tall as 2.5 m. Blueberry and Red Raspberry bushes were robust, Cirsium arvense (L.) Scopoli (Canada Thistle) appeared in numbers, horsetail remained abundant, and liverworts were common but had decreased. The early July wind storm of 1999 left only about 30 dead trunks standing. Blueberries and raspberries were very abundant, and Mountain Maple was noted for the first time. A single 0.3 m Red Pine was seen during 2002. In 2003, Jack Pines were up to 4 m tall, Black Spruce, up to 1 m tall were abundant, and a Tamiasciurus hudsonicus (Erxleben) (American Red Squirrel) was heard on the area. No Balsam Fir were seen in either Area 1 or Area 2. In 2004 conditions appeared to be identical with those of Area 1. In 2005 and 2006 conditions were again similar to those at Area 1, but several Black Spruce were over 2 m tall.

At Area 3 in 1996, ground cover was dominated by liverworts and mosses, with blueberry, Fringed Bindweed, and Conyza canadensis (L.) Cronquist (Horseweed) the common vascular plants. A few Prunus pensylvanica L. (Pin Cherry) and Sambucus pubens Michaux (Red Elderberry) had survived along the southwest shore of the island. The seedling trees noticed in areas 1 and 2 were not noticed. At the extreme southern point of the island 1 Black Ash, 1 Northern White Cedar, 1 clump of willow, and 3 mature Red Pines and 3 mature White Pines survived the fire, as did a few Myrica gale L. (Sweet Gale) and Spiraea alba Du Roi (White Spiraea). During 1997, aspen suckers were abundant. Fringed Bindweed and Horseweed were co-dominant, Additional plants noted were White Birch suckers, Rosa acicularis Lindley (Prickly Wild Rose), Aralia hispida Ventenat (Bristly Sarsaparilla), Daucus carota L. (Wild Carrot), Red Raspberry, and Solidago sp. (goldenrod). Jack Pines, absent or rare on many small islands on Lake Saganaga, did not appear throughout the study. The early July windstorm of 1999 left only about 12 standing dead trees, but the few live pines that survived the fire were still standing. Aspen, birch, and willow had reached over 3 m tall, and several Bigtooth Aspen were noticed. In 2001 only 4 (1 Red Pine, 3 White Pine) live pines remained, a seedling spruce was seen, and several seedling White Pines were noted. In 2003, White Pine seedlings were twice as abundant as those of Red Pine; both were fairly abundant and 15-60 cm tall. One 15 cm Balsam Fir was seen, but no spruce were noticed. Many aspen had been taken by beaver. In 2004, 3 seedling Balsam Fir, all 25 cm tall, were seen, no spruce were noticed, and visibility continued to be very good, with no crowding of stems as was occurring at the two mainland areas. Rhus glabra L. (Smooth Sumac) was noticed for the first time. In 2005, White Pines continued to be twice as abundant as Red Pines, and both had reached slightly over 1 m tall. Balsam Fir and spruce seedlings continued to be rare or absent, and beavers were still harvesting aspen. During 2006, a few balsam and spruce seedlings were seen, and beavers had expanded their harvest to Bigtooth Aspen and willow.

Small mammal captures

Myodes gapperi (Vigors) (Southern Red-backed Vole), the overwhelmingly dominant small mammal in the 1989 study, continued its dominance in Area 1 through the first 2 years of the study and was common during year 3 (Table 1). During 4 of the middle 5 years of the study, it was represented by 0-1 specimens per year; 16 specimens were taken during 2001. During the last 3 years of the study, they were again common, and co-dominant with Peromyscus maniculatus (Wagner) (Deer Mouse, subspecies P. m. gracilis (LeConte), Woodland Deer Mouse). The Deer Mouse, which comprised only 1.0% of captures (0-1.7% in the three "wooded" columns in the 1989 study (Table 4), were already at 11.1% of captures the first year of the study, and comprised 38.5-86.4% of captures for the rest of the study. The steady decline in Deer Mouse capture percentages from 86.4% in 2002 to 38.5% in 2006 may be suggestive of a long-term trend. Deer Mice and Red-backed Voles accounted for 88.8% of all captures. Only 6 shrews were captured during the first 4 years of the study, and 5 of these were Blarina brevicauda (Say) (Northern Short-tailed Shrew), captured during 1998 and 1999. Blarina were not seen at Area 1 for the rest of the study. Of the 14 Invited Research Paper 69

Table 1. Small mammal captures from Area 1, 1996 through 2006

Year	1996	97	98	99	00	01	02	03	04	05	06	Totals
Trap Nights	248	250	250	200	200	200	200	200	200	200	200	2348
Myodes gapperi	23	29	17	1	1	16	1	0	5	19	6	118
Peromyscus maniculatus	3	19	55	12	7	16	19	11	10	20	10	182
Microtus pennsylvanicus	0	0	1	0	0	1	0	0	0	0	0	2
M. chrotorrhinus	1	0	0	0	0	0	1	0	0	0	0	2
Phenacomys ungava	0	0	0	0	0	0	0	0	0	0	4	4
Neotamias minimus	0	0	1	4	1	0	1	1	1	2	0	11
Blarina brevicauda	0	0	4	1	0	0	0	0	0	0	0	5
Sorex cinereus	0	1	0	0	0	2	0	3	1	1	5	13
S. hoyi	0	0	0	0	0	0	0	0	0	0	1	1
Totals	27	49	78	18	9	35	22	15	17	42	26	338

Sorex shrews captured (all but 1 identified as *S. cinereus* Kerr, Cinereus Shrew), 13 were taken during the last 6 years of the study (8.3% of captures for those years), with maximum shrew numbers (6, 23.1% of captures for that year) taken the last year of the study. Other than Red-backed Voles and Deer Mice, no species comprised as much as 10% of captures during the last 5 years of the study. Nine species were captured during the 11-year study, with 2 of these [*Phenacomys ungava* (Merriam), Eastern Heather Vole, and *Sorex hoyi* Baird, American Pygmy Shrew] not appearing until the last year. *Microtus chrotorrhinus* (Miller) (Rock Vole), *M. pennsylvanicus* (Ord) (Meadow Vole), and *Neotamias minimus* (Bachman) (Least Chipmunk) complete the species list for Area 1.

In Area 2, Red-backed Voles were dominant the first year after the fire, but by year 2 Deer Mice were co-dominant, and continued to be dominant or codominant throughout the study (Table 2). Red-backed Voles appear to have had a modest increase at both areas 1 and 2 in 2001 and 2002. As at Area 1, Deer Mice captures were fewest (5 captures, 25% of 1st year captures) the first year after the fire. Maximum captures and capture percentage for Deer Mice were highest the third year of the study, similar to their numbers at Area 1, but there was no suggestion of a decrease in abundance, as appeared to have occurred at Area 1, during the last few years of the study at Area 2. Deer Mice and Redbacked Voles comprised 77.7% of all captures (88.8% at Area 1). In what is likely a curious coincidence, Short-tailed Shrews were present only during the 3rd and 4th years of the study at both areas. Sorex shrews did not appear until the second year of the study, but except for year 3 were consistently present thereafter; they comprised 15.1% (30 of 199) of all captures during the last 6 years of the study (8.3% at Area 1). These percentages suggest that they had already reached baseline relative abundance, since Sorex shrews accounted for 6.4% of captures in wooded areas in the 1989 study (Table 4). The Cinereus Shrew comprised 16.2% of all captures during the last 5 years of the study. Nine of the 12 species captured at Area 2 were represented by fewer than 5.0% of total captures during the last 5 years of the study. Amazingly, the Heather Vole, previously known from only 2 specimens from Minnesota (Etnier, 1989), was the fourth most abundant species during the last 5 years of the study (7 of 142, 4.9% of captures) at Area 2, 5 of these taken in the final year of the study. Rock Vole, Meadow Vole, Zapus hudsonius Zimmermann (Meadow Jumping Mouse), Least Chipmunk, Tamias striatus (Linnaeus) (Eastern Chipmunk), and Sorex arcticus Kerr (Arctic Shrew) complete the species list for Area 2.

Although Area 3, a 7-hectare island, provided a quite different habitat than the 2 mainland areas (no Jack Pine, differences in shrub species, presumably with the lowest relative humidity due to wind effects and obviously fewer sapling stems per unit area), the 11-year changes of capture rates of Red-backed Voles and Deer Mice were very similar to those observed at areas 1 and 2. Red-backed voles were dominant the year after the fire, co-dominant with Deer Mice the next 2 years, and then represented by only 1 capture until 31 were taken the last year of the study (Table 3). Only 1 Deer Mouse was captured the year after the fire, after which their mean capture rate was 32.6 individuals per year, with no apparent upward or downward trends. The year 2001 was not featured by the spike in Red-backed Vole numbers associated with the 2 mainland areas. In fact, their continued presence on the island was not confirmed for 6 successive years (2000–2005). Had Red-backed Voles been extirpated from the island? They suddenly resumed co-dominance with Deer Mice in 2006 (Table 3). The need for

Table 2. Small mammal captures from Area 2, 1996 through 2006

0 0 0 0 0	0 0 0 7 0	0 2 0 0	0 2 0 3 0	1 0 0 5 0	0 0 1 4 0	0 0 0 2 0	0 0 1 10 0	0 0 0 5	0 0 0 2 1	0 0 0 4 0	1 4 2 42 1
0 0 0 0	0	2	0	Ö	0	0	0	0	0 0 0 2	0 0 0 4	1 4 2 42
0 0 0	0	-	0 2 0	1 0 0	•	0	0 0 1	0 0 0	0 0 0	0 0	1 4 2
0		-	0 2	1	•	•	0	0	0	0	1 4
0	0	0	0	1	0	0	0	Ö	0	0	1
U	U	U	U	•	_	-	•	•			
Λ	Λ	Λ	Λ	1	3	0	1	0	0	1	6
0	0	0	0	0	0	2	0	0	0	0	2
0	0	0	0	0	0	0	0	1	1	5	7
0	2	0	0	0	0	1	0	0	0	0	3
0	10	0	0	0	5	0	0	0	2	0	17
5	17	47	23	10	11	10	12	9	11	14	169
15	15	8	8	2	33	10	4	2	19	12	128
240	251	250	200	200	200	200	200	200	200	200	2341
1996	97	98	99	00	01	02	03	04	05	06	Totals
	240 15 5	240 251 15 15 5 17 0 10 0 2 0 0	240 251 250 15 15 8 5 17 47 0 10 0 0 2 0 0 0 0	240 251 250 200 15 15 8 8 5 17 47 23 0 10 0 0 0 2 0 0 0 0 0 0	240 251 250 200 200 15 15 8 8 2 5 17 47 23 10 0 10 0 0 0 0 2 0 0 0 0 0 0 0 0	240 251 250 200 200 200 15 15 8 8 2 33 5 17 47 23 10 11 0 10 0 0 0 5 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	240 251 250 200 200 200 200 15 15 8 8 2 33 10 5 17 47 23 10 11 10 0 10 0 0 0 5 0 0 2 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	240 251 250 200 200 200 200 200 200 15 15 8 8 2 33 10 4 5 17 47 23 10 11 10 12 0 10 0 0 0 5 0 0 0 2 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	240 251 250 200 <td>240 251 250 200<td>240 251 250 200</td></td>	240 251 250 200 <td>240 251 250 200</td>	240 251 250 200

Table 3. Small mammal captures from Area 3, 1996 through 2006

Year	1996	97	98	99	00	01	02	03	04	05	06	Totals
Trap Nights	256	250	250	200	200	200	200	200	200	200	200	2356
Myodes gapperi	19	32	26	1	0	0	0	0	0	0	31	109
Peromyscus maniculatus	1	15	46	25	21	65	20	36	18	36	44	327
Microtus pennsylvanicus	1	1	1	0	1	5	1	0	0	0	1	11
Sorex cinereus	0	0	0	1	4	3	0	0	0	0	0	8
Totals	21	48	73	27	26	73	21	36	18	36	76	455

extreme caution in interpretation of small mammal capture data is strikingly apparent if one considers what conclusions might have been generated by the Red-backed Vole data had the study terminated in 2005 rather than 2006! Only 4 species of small mammals were encountered at Area 3, with *Sorex* shrews not captured during the early years of the study as also occurred at the 2 mainland areas.

Discussion

Originally, this study was designed to continue until small mammal populations in wooded areas returned to those noted in the 1989 study. Those conditions (Table 4, generated from capture numbers in Table 2, columns 2, 4, and 5, the wooded areas, in Etnier 1989) included Red-backed Voles comprising about 2/3 or more of all captures, about 10 total species present at mainland habitats and about half that many on small islands; shrews (all species) comprising 3-20% of captures; and no species other than Red-backed Voles comprising as much as 20% of total captures. My guess was that this return to "normal" would require at least 20 years (since I was 57 years old in 1996, this was to be a rather optimistic study), but the data accumulated during 11 years of study suggest that a trend toward that goal of normalcy was already evident. During the last year of the study, Red-backed Voles represented 23.1%, 33.3%, and 40.1% of captures at areas 1-3, respectively, after having been much less frequently captured during the middle years of the study (Tables 1-3). Deer Mice were commonly captured at all 3 areas except for the first year after the fire, and continued to be dominant, or co-dominant with Red-backed Voles, throughout the study, showing no decline in the later years of the study except perhaps at Area 1. Areas 1 and 2, the mainland sites, had 9 and 12 small mammal species captured, respectively; island site 3 had only 4. Shrew capture percentages had apparently returned to "normal" by the end of the study. Other authors (Krefting and Ahlgren 1974, Martell 1984) have commented on the rapid post-fire increase in Deer Mouse populations and decrease in Red-backed Vole populations in forested areas of northcentral North America.

Heather Voles appeared in abundance during the last few years of the study (4 of 26 captures in 2006 at Area 1; 7 captures (1, 1, and 5, respectively) during the last 3 years of the study at Area 2. This suggests the possibility that Heather Voles, at least at the southern edge of their range, are the *Dendroica kirtlandii* Baird (Kirtland's Warbler) of small mammals, responding in a very positive fashion to a fire-produced abundance of Jack Pines approximately 10 years old.

The 455 total captures at Area 3 (a 7-hectare island) versus 338 and 382 captures, respectively, at the 2 mainland areas, was surprisingly high, especially when considering that avian predation was potentially highest at Area 3 due to an active Larus argentatus Pontoppidan (Herring Gull) rookery on the island and adjacent Spruce Island, with about 50 adults and 25 juveniles present each year throughout the study. The only known Herring Gull rookery on Lake Saganaga had for the past several decades been on Seagull Island (Fig. 1), and adjacent small islands, approximately 5 km northeast of Spruce Island. The relocation of the rookery to the Spruce Island area in about 1996 may have been a response to the 1995 fire, but may also have been influenced by a large and expanding Haliaeetus leucocephalus (Linnaeus) (Bald Eagle) population, individuals of

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Table 4. Small mammal captures from wooded areas in and adjacent to Lake Saganaga, 1962 to 1987 (modified from Etnier 1989).

Taxon	1989 Areas 3-8	1989 Area 10	1989 Area 11
	Lone Pine Bay	New Lewis Island	Red Pine Island Bog
Myodes gapperi	197	33	115
Peromyscus maniculatus	5	0	0
Microtus pennsylvanicus		0	7
M. chrotorrhinus	55	2	10
Phenacomys ungava	1	0	1
Synaptomys cooperi	12	0	11
Neotamias minimus	2	0	0
Blarina brevicauda	0	1	1
Sorex arcticus	1	0	0
S. cinereus	20	7	3
S. palustris	1	0	0
Captures	294	43	149
Trap Nights	1321	764	568

which were consistently present near Seagull Island but not often seen near Spruce Island.

Is post-fire recolonization of small mammal populations primarily due to immigration, or to survival of at least a few resident individuals? First year capture success during the summer after the fire appears to be identical at the 3 study areas, with 27 and 20 captures at mainland areas 1 and 2, and 21 captures at island Area 3. Dispersal of small mammals across water/ice barriers to island Area 3 is presumably much more difficult (Spruce and Little Spruce islands are separated from the Ontario mainland by 1.2 km and from the Minnesota mainland by 1.6 km, and the closest islands are about 1 km distant) than overland dispersal from non-burned portions of the Minnesota mainland along the south and east shores of James Bay. The very similar first year post-fire capture data (Tables 1-3) suggests that former residents provided the reproductive impetus to repopulate the areas. The data in Tables 1-3 also suggest that for small mammals, likelihood of surviving a fire is not based on behavior of the individual species but on pre-fire abundance of each species. Red-backed Voles, comprising 2/3 to 3/4 of pre-fire small mammal individuals in wooded areas during the 1989 study, represented 23 of 27, 15 of 20, and 19 of 21 captures per total captures at areas 1-3, respectively (= 75-90%), the first year post-fire.

Reappearance of the additional species that inhabited the area pre-fire appears to be governed by stochastic processes such as the presumably wide range of probabilities of capturing an uncommon species with only 200 trap nights of effort, of species-specific reproductive success within a calendar year, and of species-specific capture probabilities in mouse traps baited with peanut butter, all of which might be strongly influenced by weather. It is possible that failure to capture any shrews during the first year post-fire is related to their lack of food-storage behaviors—behaviors that are well developed in rodents. On the other hand, dispersal events associated with the numerous small islands on Lake Saganaga certainly happen. Swimming across short reaches of water has been noticed in Red Squirrels, and attempted at least once in a Synaptomys cooperi (Baird) (Southern Bog Lemming) found floating dead during the 1989 study). Local trappers Dickie Powell and the late Irv Benson (pers. comm.) have indicated that large carcasses left on the ice in winter by wolves or trappers often develop a complex of small mammal tunnels leading from the mainland or islands to the carcass, even if the carcass is remote from land. That winter colonization of islands is important to small mammals is also suggested by the apparent absence or extreme rarity of the winter-dormant chipmunks and Meadow Jumping Mice on small islands in Lake Saganaga.

Acknowledgments

Fred Weinmann provided a copy of his unpublished list of vascular plants of the Lake Saganaga area, and was, during his summer stays at the lake, always available for help with difficult plant identifications. My wife, Liz, helped with establishing the 3 study areas, taking photographs of the areas, identifying the herbaceous plants, contributing helpful suggestions to an early draft of the paper, and formatting the tables.

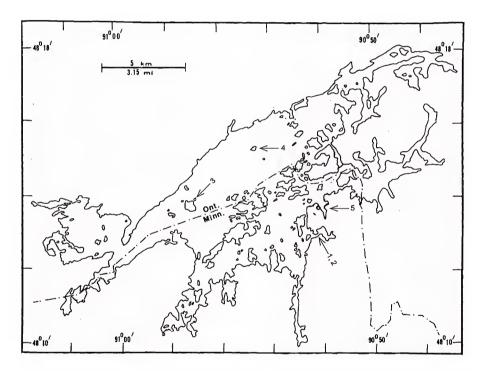
Literature Cited

Etnier, D.A. 1989. Small mammals of the Boundary Waters Canoe Area, with a second Minnesota record for the Heather Vole, *Phenacomys intermedius*. The Canadian Field-Naturalist 103:353-357.

Krefting, L.W. and C.E. Ahlgren. 1974. Small mammals and vegetation changes after fire in a mixed conifer—hardwood forest. Ecology 55:1391-1398.

Martell, A. M. 1984. Changes in small mammal communities after fire in northcentral Ontario. Canadian Field-Naturalist 98:223-226.

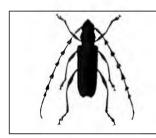
Walshe, S. 1980. Plants of Quetico and the Ontario Shield. University of Ontario Press, Toronto, xxiii + 152 pp.



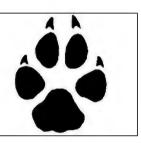
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OBITUARIES

Benjamin Theodore Cole 1921-2011



Benjamin Theodore "Ted" Cole, 90, died Wednesday, December, 28, 2011. Born May 24, 1921 in New Brunswick, N.J., he was the son of the late Fred Cole and Grace King Trimmer Cole.

Ted graduated from the New York State Ranger School, in Wanakena, N.Y. in 1941 and began a career in Forestry as a Timber Cruiser with the Southern Kraft Paper Co. He married Ms. Leona Todd of Allsbrook, S.C., on May 30, 1943.

Ted enlisted in the US Air Corps in September 1942 and served Stateside and Overseas in the Philippine Islands during WWII. He was discharged as a Staff Sergeant from the USAF in February 1946.

He attended Duke University in the fall of 1946, completing his BS in Zoology with a minor in Chemistry in 1949. Ted entered the M.S. Program and was awarded the M.S. Degree in Zoology with a minor in History in 1951. He completed his Ph.D. work in the Department of Physiology, School of Medicine, Duke University, in 1954.

Ted taught at LSU in Baton Rouge, Louisiana from 1954 until 1959 when he accepted a one-year research appointment as Senior Investigator in the Biology Division, Oak Ridge National Laboratory, Atomic Energy Commission, Oak Ridge, Tennessee.

Dr. Cole accepted an appointment as Associate Professor of Biology, University of SC, in the fall of 1960. He taught Physiology for Nurses through 1995. He also taught Comparative Physiology and Mammalian Physiology to pre-Medical and Graduate students from 1960-1987.

He was promoted to the rank of Full Professor in 1963 and served as Head of the Biology Department from 1964-1973. As Head of the Department, he was instrumental in the establishment of the Baruch Institute and the Marine Science program at USC. He implemented a visiting Scientist Program, resulting in the appearance on campus of internationally recognized Scientists.

He was a Fellow of the American Association for the Advancement of Science and has been listed in "Who's Who in America" since 1965. He was a member of the American Physiology Society, the South Carolina Academy of Science, and the Association of Southeastern Biologists, 1955-73. He was a member of the ASB Executive Committee, 1960-63, and served as Vice President of the Association, 1965-66. He invited the Association to the University of South Carolina for its 28th Annual Meeting held in April, 1967, and, as Head of the Biology Department, he appointed the Local Arrangements Committee for that meeting. Dr. Cole authored 26 publications in various

scientific journals, presented 13 seminars, and engaged in substantial Research Grant activity. He served as a Major Advisor for 24 MS graduates and 12 Ph.D. graduates in Biology at USC. He retired from USC as Distinguished Professor of Biology in 1987.

Survivors include his wife of 68 years, Leona; a daughter, Rebecca Joyce Cole of Columbia; a son, Timothy T. Cole and his wife, Lein Cole, and stepgranddaughter, Hami Vo, all of Atlanta, GA; and a sister, Virginia Cole, in Princeton, N.J.

(Extracted and modified from *The State Newspaper*, Sunday, January 1, 2012) *J. M. Herr, Jr.*

James Steven Fralish 1938-2011



CARBONDALE - James "Jim" Steven Fralish, 72, died Tuesday, Aug. 30, 2011, at home after a short but courageous battle with a brain tumor.

He was born Nov. 4, 1938 in Berlin, Wis., to Loretta and Steve Fralish.

He married Kathleen Brown on June 20, 1964; she survives.

Dr. Fralish received his bachelor's and master's degrees in forestry from Michigan State University. After receiving his Ph.D. in plant ecology from the University of Wisconsin-Madison in 1969, he accepted a position in SIU Carbondale's forestry department, where he taught and did research until his retirement in 1996. He prided himself on the individual attention

he provided to his graduate students and worked alongside them in the field and in the laboratory. Even after his retirement, he continued to guide students through their graduate work, the last graduating in August of this year.

Dr. Fralish was a well-respected researcher in the field of plant ecology, with many published articles and several books, including "Taxonomy and Ecology of Woody Plants in North American Forests." He was a senior editor of the "American Midland Naturalist." He was a member, winner of the Faculty Research Award and former president of the Association of Southeastern Biologists and a senior ecologist in the Ecological Society of America. He served on the Illinois Nature Preserves Commission.

Jim was an active member of the Carbondale and Southern Illinois communities. He was a founding member of the Southern Illinois Audubon Society, which was formed as part of an effort to save Lusk Creek in Pope County, and held many leadership positions in that organization. He was part of the formation of Carbondale Soccer Inc., and served continuously on the board of directors, where his sage advice was always appreciated. His love of the sport and commitment to the youth of the community resulted, with the help of many others, in the establishment of both boys and girls soccer programs at

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Carbondale Community High School. He served as assistant and head coach for the boys teams at various times, and as head coach of the girls' team for the first five years. He was also a soccer referee and could always be found on the soccer fields on Saturday mornings.

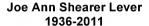
In recognition of years of service to the community, he received the prestigious Lindell W. Sturgis Award from the SIU Board of Trustees in 1996, and was named to the Hall of Service of Carbondale Community High School in 2010. He was named as one of the Leaders Among Us by the Southern Business Journal in 2005. Jim was proud to serve on the Carbondale Park District Board of Commissioners, from which he regretfully resigned when he became ill.

Jim was an avid Saluki fan, especially enjoying men's and women's basketball, volleyball and softball. He also was a strong St. Louis Cardinals supporter, and for many years attended the Cardinals Legends camp, where he had the opportunity to play baseball with the pros and was a pretty good pitcher in his day. He enjoyed backpacking, hiking, camping, canoeing and cycling, especially when those activities were shared with his wife and friends.

Jim is survived by his wife of more than 47 years; children, Christopher Julian-Fralish and his wife, Stacey, of Carbondale and Nath-aliewyn "Tally" Fralish Robbins of De Soto. "G.G." will be missed by his grandchildren, Jake, Kaedi, Janey and Baylor Robbins of De Soto, and Sage Julian-Fralish, of Carbondale. Also surviving are his sister, Evelyn Thomas, of Berlin Wis., and her children, Julie Portman, Dr. Terry Altpeter and Dr. David Thomas (Cheryl); sister-in-law, Wyn Brooks of Louisville, KY, her husband, Tom Brooks, and their daughter, Michelle Foote (Tom); brother-in-law, Keith Brown of Cincinnati, his wife, Nancy Brown, and their children, Melissa Severance (David), Emily Brown, Elizabeth Proud (Andy), Nathan Brown, Matthew Brown and Alex Brown and many great-nieces and nephews.

By his request, Jim will be cremated after a private burial. A gathering of friends and family will be at a later date. Memorial contributions may be made to Hospice of Southern Illinois or Carbondale Community High School Foundation for the benefit of the soccer program.

Published in The Southern Illinoisan, Carbondale, IL from August 31 to September 1, 2011.





Spartanburg, SC — Joe Ann Shearer Lever, the wife of William Boldridge Lever, died November 23, 2011, after a brief illness. The daughter of the late Isaac Briles Shearer and Janie Algee Shearer, she was 75 years old.

Mrs. Lever, Dean Emerita of the College of Arts and Sciences and Associate Professor Emerita of Biology at Converse College, was a native of Marshall County, Mississippi, where she grew up on a cattle and cotton farm. She was a graduate of Byhalia High School. She earned Bachelor of Arts and Master of

Arts degrees in biology from the University of Mississippi, where she worked as a laboratory assistant in general biology and zoology for four years. She did further study at the University of North Carolina and Bryn Mawr College and completed course work toward a doctorate in higher education at the University of South Carolina.

Dean Lever began her career at Perkinston Junior College and Blue Mountain College for Women in Mississippi. She joined the Converse College faculty in 1962. She served on virtually every committee of the College during her 42 years there. She held such faculty positions as President of the Faculty Senate and Chair of the Tenure and Promotions, Academic Advisers, and Honorary Degree Committees. She was Co-Chair of the committee that planned the celebration of the Converse College Centennial. She was Director of the Office of Career Services and Associate Dean of the College of Arts and Sciences. Dean Lever was selected by her peers as the first recipient of the Spirit of Converse Award and was designated as an Honorary Alumna by the Converse College Alumnae Association. She received the Sears-Roebuck Foundation Teaching Excellence and Campus Leadership Award, which was established to recognize a faculty member who had made unusual contributions to the college and to the community in leadership, scholarship and service. She was an honorary member of the Dance Ensemble at Converse. She was a member of the South Carolina Academy of Science and the Association of Southeastern Biologists.

Upon her retirement in 2002, Converse College awarded her a Doctor of Laws degree, and a laboratory in Pfifer Hall was named in her honor. Earlier two endowments were established in her name at Converse College. Commenting on Dean Lever's retirement, Bonnie Bailey Webster, a 1994 Converse biology alumna, said, "It has been said that a teacher can shape a student, and a student can shape the world. The world is a better place for the countless number of women Joe Ann Lever has shaped — among them mothers, nurses, doctors, teachers, scientists, and community leaders." Another biology alumna, Palmer Davison Ball, class of 1984, established the Joe Ann Lever Biology Award in 2002. The award is presented to a senior biology major with an outstanding academic record and a demonstration of love for the field of biology such as that exhibited by Dean Lever. On December 9, 2010, an anonymous alumna had the auditorium in Kuhn Science Hall named in honor of Dean Lever.

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Following her official retirement in 2002, Dean Lever was again Director of the Office of Career Services while a search for a new director was completed. For one year she was Director of the Converse II Program. In 2006 Dean Lever received the Dexter Edgar Converse Award, the highest award that is given by Converse College. A statement at the Thousand Thanks Donor Gala at the time she received this award said, "It is fitting that on this night we shine the spotlight on one of our finest, Joe Ann Lever, whose leadership and generous commitment of time and financial support have moved the College to new heights."

Although Dean Lever always said she had two passions in life, her family and Converse College, she also was active in her community. She served as President, First Vice President, and Corresponding Secretary of the Spartanburg Branch of the American Association of University Women, as Editor of the South Carolina AAUW newsletter, and Chairwoman of South Carolina Corporate Representatives for AAUW. Dean Lever was also a recipient of a named gift to the AAUW Foundation. She was a member of the Board of Directors of AWARE and was Vice Chair of the Board of the Adult Learning Center. She was a member of Delta Kappa Gamma, Alpha Psi Omega, and charter member of the Jessamine Society, an honorary society which recognizes outstanding women of the upstate on the basis of achievement, vision, creativity, commitment, compassion, and leadership.

The preceding obituary was prepared by Dr. John Herr, Department of Biological Sciences, University of South Carolina, Columbia, and is an abbreviated version of the one which was published in the Spartanburg Herald-Journal, Spartanburg, SC, November 25-26, 2011.

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On December 25, 2011, ASB received a very nice Christmas present -- Scott Jewell became our newest ASB Patron Member by making his first Patron dues payment. (ASB Patron Membership requires an annual dues payment of \$1000.) Scott, a biology major graduating from Virginia Military Institute, already is an ASB Life Member. After a successful marketing career at Carolina Biological Supply Company, Scott started his own business, A2Z Convention Services, and serves ASB as our Meeting Coordinator. Scott hopes that his example may inspire others to step up their level of support for ASB.

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